

***COORDINATING HEALTH CARE REFORM
WITH THE U.S. TERRITORIES AND POSSESSIONS:
THE CASE OF PUERTO RICO***

Roberto Ramírez, Ph. D., Principal Investigator
William Rodríguez González, M.S., Project Director
María E. Velázquez, M.P.H., Data Analyst
Iris Anette Figueroa Rivera, Assistant Investigator
María A. Henríquez Montes, Secretary



Project Consultants
Allen Dobson, Ph.D.

This report prepared with the support of the Health Care Financing Administration, Office of Research and Demonstrations, under cooperative agreement No. 18-C-90240/2-01 to Instituto de Administración y Política de Salud de Puerto Rico, Inc. The opinions expressed are solely those of the authors, and do not necessarily represent those of the Health Care Financing Administration.

PROJECT:
COORDINATING HEALTH CARE REFORM
WITH THE TERRITORIES: THE CASE OF PUERTO RICO

GRANT NUMBER: 18-C-90240/201

WORK PLAN

In the first year of the Project we will gather and analyze data on health status of the population of Puerto Rico, and on utilization of health services and expenditures. The analyses will identify the major problems of our health care system and its unique causes. Once this information is available, the efforts of the second year will be directed to analyze health care reforms initiatives at the state and federal level and propose specific policies for health care reform. As part of this endeavor, we will identify which health care reform concepts could be applied to Puerto Rico and areas of health policy interest to develop future research.

During the first year of the Project we will achieve the following objectives:

Objective 1

Gather and analyze data on health status of the population of Puerto Rico.

This objective is geared to provide a detailed description of the health status of the population in Puerto Rico and identify the most pressing health care problems according to mortality and morbidity data. This objective will be achieved by performing the following specific tasks.

- a. Gather data on infant mortality rates (neonatal and postneonatal).
- b. Compare infant mortality rates to the mainland United States.
- c. Analyze infant mortality rates with a cross sectional model to establish the relationship between infant mortality rates in each town with system variables, like median income, total employment, median years of education, hospital beds per 1,000 population, expenditures per capita in primary care services and number of primary care physicians per 1,000 population.
- d. Gather data on mortality rates for the population.
- e. Compare mortality rates with mainland United States.
- f. Establish the main causes of death and compare them with mainland United States.

- g. Analyze the trends on AIDS related mortality and compare them with mainland United States.
- h. Establish the most frequent DRG distribution of cases for the Medicare and Medicaid population.
- i. Compare the DRG distribution with that of the mainland United States.

The following data sources have been identified with the tasks of the first objective:

- 1. Puerto Rico Department of Health Vital Statistics 1980-1990.
- 2. Puerto Rico Department of Health Quarterly Health Survey 1980-1990.
- 3. 1990 U.S. Census for Puerto Rico and 1990 U.S. Census Socioeconomic Survey of Puerto Rico and its Municipalities.
- 4. U.S. Statistical Abstracts.
- 5. Puerto Rico Peer Review Organization (PRO).

Objective 2

Explain levels of health expenditures and growth in Puerto Rico.

The following tasks will be executed to achieve this second objective:

- a. Gather and analyze time series data on utilization trends for different types of health care services such as, admissions, length of stay, and outpatient visits. Comparison between the utilization rates in the public and the private sectors will be essential to understand structural differences within the health care system.
- b. Analyze expenditures according to type of service. The different type of services that will be considered are: Hospital care, physician services, dental services, other professional services, medical durable, program administration, government public health activities and research and construction.
- c. Analyze expenditures according to sources of funds. the following sources of funds have been identified: Private insurance, out of pocket, Federal and State and local.
- d. Compare with the mainland United States total health expenditures as a percent of gross domestic product.

- e. Compare with the mainland United States the level of public health expenditures as a percent of total health expenditures.
- f. Compare with the mainland United States the per capita health spending.
- g. Compare with the mainland United States the rate of growth in health spending using the GDP deflator and the health deflator. This analysis enable us to compare the importance of volume and health services inflation in explaining growth in expenditures, between Puerto Rico and mainland United States.
- h. Estimate the elasticity of per capita health spending relative to per capita gross domestic product from 1985-1990 and compare it with the estimated elasticity for the mainland United States.

The following data sources have been identified:

- 1. Health expenditures: Puerto Rico Planning Board 1980-1990.
- 2. Health expenditures: Office of Insurance Commissioner; Annual Report.
- 3. Health expenditures: Cooperativa de Seguros de Vida (COSVI), Medicare Part A Carrier.
- 4. Health expenditures: Triple S; Medicare Part B Intermediary.
- 5. Health expenditures: Puerto Rico Office of Budget and Management.
- 6. Health and GDP deflators: Puerto Rico Department of Labor; Bureau of Statistics.
- 7. Vital Statistics, Puerto Rico Department of Health.
- 8. National Health Expenditures, HCFA.

Objective 3

Establish the relationship between health and health financing problem with the unique structural characteristics of the Puerto Rico health system.

In conjunction with the execution of the first two objectives, we will be able to correlate the identified principal problems with characteristics of the health care system in Puerto Rico that could be subject to health policy reforms. The execution of this objective will set the baseline which will be used to evaluate health care reforms initiatives at the state and federal level.

The following tasks will be performed to attain this third objective:

- a. Analyze health care expenditures growth by sector (public and private) and type of service. This will enable us to identify the services that are in competition for resources in each sector and explain its unique causes of growth in the Puerto Rico health system.
- b. Compare growth in health care expenditures with the growth of funds used to finance these expenditures. This analysis will be performed for the public and private health care sectors in Puerto Rico.
- c. Correlate health care expenditures growth to morbidity and mortality indices.
- d. Establish the relationship between mortality and morbidity indices and the availability of health care resources. For example, infant mortality rates and low birth weight in each town will be correlated with the supply of primary care physicians practicing in each town, number of full time equivalent physicians and allied personnel working in government primary care centers, and the availability of back up facilities to primary care centers.
- e. Appraise how the number of insured by private health insurance companies, number of persons certified as Medicaid recipients and number of Medicare beneficiaries explain the growth in health care expenditures in the public and private sectors.

Data sources to be used in executing these tasks related to the third objective.

1. Health expenditures: Puerto Rico Planning Board 1980-1990.
2. Health expenditures: Office of Insurance Commissioner; Annual Report.
3. Health expenditures: Cooperative de Seguros de Vida (COSVI), Medicare Part A Carrier.
4. Health expenditures: Triple S; Medicare Part B Intermediary.
5. Health expenditures: Puerto Rico Office of Budget and Management.
6. Insured persons: Office of Insurance Commissioner Annual Report.
7. Medicaid recipients: Office of Services to the Medically Indigent; Puerto Rico Health Department.

The following objectives will be achieved during the second year of the Project. In the second year we will evaluate reforms initiatives at the State and Federal level

to understand what specific problems geared them and its application to Puerto Rico unique system.

Objective 4

Evaluate health care reforms initiatives at the state level to establish its applicability to Puerto Rico.

The major strategies employed by the states to expand access to health care fall into the following broad categories:

- i. comprehensive reforms
- ii. small group market reforms
- iii. expanding coverage for spec a populations; and,
- iv. pooling risk to improve access to individuals who have difficulty finding insurance.

Given the dual nature of our health care system, each of these categories of reform initiatives will be analyzed to assess its applicability to Puerto Rico. We believe that any health care reform initiative in Puerto Rico will have to address both sectors, the public and the private. The following specific tasks will be executed as part of this objective:

- a. Study legislation passed in Florida, Vermont and Minnesota as initiatives of comprehensive reforms. In studying these initiatives we will establish to what specific problems they intent to respond and the differences and similarities with the problems identified in our analysis of the health system in Puerto Rico.
- b. Analyze reforms of publicly financed programs like the Oregon Health Plan, and the Arizona Health Care Cost Containment Act (AHCC) geared mainly to serve the Medicaid population.

Objective 5

Analyze proposed health care reforms initiatives at the Federal level and its feasibility in Puerto Rico.

At this time there is uncertainty regarding the specific proposals for health care reform that will be sent to Congress by the Task Force. However, there are some general tasks that in which we will be engage.

- a. Study proposed legislation and establish bow its main policy measures can be applied to Puerto Rico.
- b. Recommend specific policies geared to coordinate health care reforms initiatives in U.S. mainland with reforms initiatives in Puerto Rico.

**Progress Report I
Files and Data Banks**

FILE	DESCRIPTION	LOCALIZATION
EV-PRUS.WK3 (DATA BANK)	General Mortality Rate by Sex; PR vs. USA; Rate by 1,000 population; 1950-91	C:/123W/PRES
	General Mortality Rate by Sex; USA; Rate by 100,000 population; 1950-91	
	Puerto Rico population in millions; 1950-90	
	Specific Mortality Rates by Heart Conditions, HIV, Cardiovascular Diseases and Accidents Rates by 100,000 population; 1980-93	
	Deaths by Age Groups; PR; 1950-91	
	Deaths by Specifics Causes by Sex; USA; 1950-91	
	Deaths by Specifics Causes by Sex; USA; Rates by 100,000 population; 1950-91	
	Deaths by Age Groups; USA; 1950-91	
	Deaths by External Causes; PR vs. USA	
	Rates by 100,000 population; 1950-91	
	Mortality Rates by External Causes by Sex; PR vs. USA; Rates by 100,000 population; 1950-91	
	Mortality Rates by External Causes by Age Groups; PR vs. USA; Rates by 100,000 population; 1950-91	
	Deaths by External Causes by Sex and Age Groups; PR vs. USA; Rates by 100,000; 1951-90	
	Neonatal and Postneonatal by Year, Sex and Cause; PR vs. USA; Rates by 1,000 population	
	Infant Mortality Rate by Health Regions; PR; 1977-91	
	Infant Mortality Rates by Municipalities; PR; 1977-91	C:/123W/WILLIAM
EV. PRU2.WK3	Mortality Rates by Specific Causes; PR vs. USA; 1950-91	C:/123W/WILLIAM
	Number and Deaths Rates by External Causes and Sex; PR vs. USA; Accidents, Homicides and Suicides	
SASANA.WK3	Municipality, Income, Unemployment Rate, Beds by 1,000 population, Physicians by 1,000 population, OBGYN by 1,000 population; PR; 1990	C:/123W/WILLIAM
MEDICO.WK3	Primary Care Physicians by Specialties and Municipality; PR	C:/123W/WILLIAM
POBLACIO.WK3 (DATA BANK)	Population by Municipality and Demographic Data; 1980-90	C:/123W/WILLIAM

**Progress Report I
Files and Data Banks**

FILE	DESCRIPTION	LOCALIZATION
SIDA.WK3	Confirmed AIDS Cases in Puerto Rico; 1992	C:/123W/WILLIAM
SIDAPM.WK3	AIDS by Municipality; PR; Rates per 1,000	C:/123W/WILLIAM
C.PRIMA.WK3	Cost by Patients Services in CDT, CSF, Area and Regional Hospitals; PR; 1981-92	C:/123W/WILLIAM
SALUD.WK3 (DATA BANK)	Hospitalization by Sex and Age Groups; PR; 1973-88	C:/123W/WILLIAM
	Hospitalization by Service Sector and Ae Groups; PR; 1973-88	
	Discharges by Sex and Age Groups; PR; 1973-88	
	Discharges by Service Sector and Age Groups; PR; 1973-88	
	Physicians Visits by Sex, Age Groups and Type of Hospital; PR	
	Dentist Visit by Sex, Age Groups. and Type of Hospital; PR	
SIDAEUI.WK3	Confirmed AIDS Cases: USA; 1992	C:/123W/WILLIAM
GRAPHHOM.PRS	Mortality Rate by Homicide; PR	C:/HGW/PRES
GRAPHS1.PRS	Total AIDS Confirmed Cases By Race/Ethnicity; PR	C:/HGW/PRES
GRAPHS2.PRS	Total AIDS Confirmed Cases By Race/Ethnicity and Sex; PR	C:/HGW/PRES
GRAPHS4.PRS	Total AIDS Confirmed Cases by Patient Groups; PR	C:/HGW/PRES
GRAPHS5.PRS	Total AIDS Confirmed Pediatric Male Cases by Patient Groups; PR	C:/HGW/PRES
GRAPHS6.PRS	Total AIDS Confirmed Pediatric Female Cases by Patient Groups; PR	C:/HGW/PRES
GRAPHS7.PRS	Total AIDS Confirmed Pediatric Cases by Patient Groups; PR	C:/HGW/PRES
GRAPHSUI.PRS	Mortality Rates by Suicide; PR vs. USA; 1975-91	C:/HGW/PRES
GRAPHVIH.PRS	Mortality Rates by VIH; PR vs. USA; 1981-91	C:/HGW/PRES
RIC.PRS	Leading Causes of Death; PR vs. USA; 1950-91	C:/HGW/PRES
SIDAG1.PRS	AIDS in Adults/Adolescents Cases Reported; PR	C:/HGW/PRES
SIDAG2.PRS	AIDS in Pediatric Cases Reported; PR	C:/HGW/PRES

**Progress Report I
Files and Data Banks**

FILE	DESCRIPTION	LOCALIZATION
SIDAG3.PRS	AIDS in Total Cases Reported; PR	C:/HGW/PRES
SIDAG4.PRS	AIDS Deaths in Adult/Adolescents Cases Reported; PR	C:/HGW/PRES
SIDAG5.PRS	AIDS Deaths in Pediatrics Cases Reported; PR	C:/HGW/PRES
SIDAG6.PRS	AIDS Deaths in Total Cases Reported; PR	C:/HGW/PRES
SIDAPG1.PRS	AIDS Confirmed Cases by Age; PR	C:/HGW/PRES
SIDAPG10.PRS	AIDS in Adults/Adolescents Females by Patient Group; PR	C:/HGW/PRES
SIDAPG11.PRS	Total Confirmed AIDS Cases in Adults/Adolescents by Patient Groups; PR	C:/HGW/PRES
FYWP.PRS	First Year Work Plan	C:/HGW/PRES
GRAPH1.PRS	Mortality Rates by Year; PR vs. USA; 1962-90	C:/HGW/PRES
GRAPH2.PRS	Mortality Rates by Sex; PR vs. USA; 1962-90	C:/HGW/PRES
GRAPH3.PRS	Mortality Rates; PR vs. USA; 1962-90	C:/HGW/PRES
GRAPH4.PRS	Infant Mortality Rates; PR vs. USA; 1955-90	C:/HGW/PRES
GRAPH5.PRS	Infant Mortality Rates; PR vs. USA White and Blacks; 1955-90	C:/HGW/PRES
GRAPH6.PRS	Neonatal Mortality Rates; PR vs. USA; 1971-90	C:/HGW/PRES
GRAPH7.PRS	Neonatal Mortality Rates; PR vs. USA White and Blacks; 1971-90	C:/HGW/PRES
GRAPH8.PRS	Postneonatal Mortality Rates; PR vs. USA; 1971-90	C:/HGW/PRES
GRAPH9.PRS	Postneonatal Mortality Rates; PR vs. USA White and Blacks; 1971-90	C:/HGW/PRES
GRAPHCAN.PRS	Mortality Rates by Cancer; PR vs. USA; 1975-91	C:/HGW/PRES
GRAPHCUA.PRS	Mortality Rates by Cerebrovascular Disease; PR vs. USA; 1975-91	C:/HGW/PRES
GRAPHIA.PRS	Mortality Rates by Diabetes Mellitus; PR vs. USA; 1975-91	C:/HGW/PRES
GRAPHMDI.PRS	Mortality Rates by Heart Disease; PR vs. USA; 1975-91	C:/HGW/PRES
GPC1.PRS	Change in the Rate of Death by Accident and Age Groups; PR	C:/HGW/PRES

**Progress Report I
Files and Data Banks**

FILE	DESCRIPTION	LOCALIZATION
GPC2.PRS	Change in the Rate of Death by Homicide and Age Groups; PR	C:/HGW/PRES
GPC3.PRS	Change in the Rate of Death by Suicide and Age Groups; PR	C:/HGW/PRES
JOSE1.PRS	AIDS Cases by Race/Ethnicity per 100,000 population; PR vs. USA	C:/HGW/PRES
JOSE2.PRS	AIDS Cases by Race/Ethnicity; PR vs. USA	C:/HGW/PRES
PEDiateP.PRS	AIDS Pediatric Cases by 100,000 population; PR	C:/HGW/PRES
DRG's.PRS	Operational Cost per Patient by Hospital and Beds; PR	C:/HGW/PRES

**Progress Report II
Files and Data Banks**

FILE	DESCRIPTION	LOCALIZATION
ACURATES	Acute Conditions Rates (1880-88)	C:/HG3/PRES
AD90	Admissions in General Hospitals by Bed Size	C:/HG3/PRES
ADMI	Admissions in General and Specialized Hospitals by Service Sector	C:/HG3/PRES
ALTAS	Discharges in General and Specialized Hospitals by Service Sector	C:/HG3/PRES
BGGH	Beds Growth in General Hospitals	C:/HG3/PRES
CA1000	Rate of Authorized Beds in General and Specialized Hospitals per 1000 Population	C:/HG3/PRES
CAUTO	Authorized Beds in General and Specialized Hospitals by Service Sector	C:/HG3/PRES
CHRRATE	Chronic Conditions Rates	C:/HG3/PRES
RBUG	Rate of Beds in Use in General and Specialized Hospitals per 1000 Population	C:/HG3/PRES
CU90	Beds in Use in General Hospitals by Bed Size	C:/HG3/PRES
CUSO	Beds in Use in General and Specialized Hospitals by Service Sector	C:/HG3/PRES
CUSO	Beds in Use in General and Specialized Hospitals by Service Sector	C:/HG3/PRES
DIS90	Discharges in General Hospitals by Bed Size	C:/HG3/PRES
DP90	Patients Days in General Hospitals by Bed Size	C:/HG3/PRES
BED1000	Beds per 1 000 in Community Hospitals (1983)	C:/HG3/PRES
COMHOS83	Community Hospitals Use (1983-90)	C:/HG3/PRES
COMN	Community Hospitals Use by Bed Size	C:/HG3/PRES
FEDHOS	Federal Hospitals Use	C:/HG3/PRES
INGPERCA	Per Capita Income	C:/HG3/PRES
INMEFAM	Median Family Income	C:/HG3/PRES
MORTREGN	Regional Mortality, P.R.	C:/HG3/PRES
PSYCHOSP	Psychiatric Hospitals, P.R.	C:/HG3/PRES

**Progress Report II
Files and Data Banks**

FILE	DESCRIPTION	LOCALIZATION
ACSXAGE	Acute Conditions by Sex and Age Groups, P.R. (1988)	C:/HG3/PRES
ACURASY	Rates of Selected Acute Conditions, P.R.	C:/HG3/PRES
ACURATES	Acute Condition Rates, P.R. (1980-88)	C:/HG3/PRES
AD90EU	Admissions in General Hospital by Bed Size, P.R.	C:/HG3/PRES
ADMIEU	Admissions in General Hospitals by Service Sector, P.R.	C:/HG3/PRES
CRORASY	Rates of Selected Chronic Conditions by Age Groups, P.R.	C:/HG3/PRES
CROXAGE	Chronic Conditions by Sex and Age Groups, P.R. (1988)	C:/HG3/PRES
CU1000EU	Rate of Beds in Use in General Hospitals per 1000 Population, P.R.	C:/HG3/PRES
CU90EU	Beds in Use in General Hospitals by Bed Size, P.R.	C:/HG3/PRES
CUSOEU	Beds in Use in General Hospitals by Service Sector, P.R.	C:/HG3/PRES
DIS90	Discharges in General Hospitals by Bed Size, P.R.	C:/HG3/PRES
DP90	Patients Days in General Hospitals in Puerto Rico	C:/HG3/PRES
EPRO90EU	Average Length of Stay in General Hospitals in Puerto Rico	C:/HG3/PRES
EPROM90	Average Length of Stay in General Hospitals in Puerto Rico	C:/HG3/PRES
EPROSSEU	Average Length of Stay in General Hospitals in Puerto Rico	C:/HG3/PRES
NUALTAS	Discharges in General Hospitals by Sex and Age Groups; P.R.	C:/HG3/PRES
NUVDENT	Dentist Visits by Age Groups; P.R.	C:/HG3/PRES
NUVDINGR	Dentist Visits per Person by Income; P.R.	C:/HG3/PRES
PO90EU	Occupancy Percentage in General Hospitals by Bed Size; P.R.	C:/HG3/PRES
POCUEU	Occupancy Percentage in General Hospitals by Service Sector; P.R.	C:/HG3/PRES
T-HXR&S1	Utilization Data in General Hospitals by Region	C:/HG3/PRES
T-HXR&S2	Utilization Data in General Hospitals by Region	C:/HG3/PRES

**Progress Report II
Files and Data Banks**

FILE	DESCRIPTION	LOCALIZATION
T-HXR&S3	Utilization Data in General Hospitals by Region, P.R.	C:/HG3/PRES
T-HXR&S5	Utilization Data in General Hospitals by Region, P.R.	C:/HG3/PRES
NUHOSP	Admissions in General Hospitals by Sex and Age Groups, P.R.	C:/HG3/PRES
NUMEDVI	Rate of Outpatients Visits to Physicians per Person by Sex, P.R.	C:/HG3/PRES
NUMVAGE	Rate of Outpatients Visits to Physicians by Age Group, P.R.	C:/HG3/PRES
NUMVTYPE	Percent Distribution of Outpatients Visits to Physician by Service Sector and type of Hospital, P.R.	C:/HG3/PRES
NURSE	Number of Nurses, P.R.	C:/HG3/PRES
NUSTAY	Average Length of Stay in General Hospitals by Sex and Year, P.R.	C:/HG3/PRES

**COORDINATING HEALTH CARE REFORM
WITH THE U.S. TERRITORIES AND POSSESSIONS:
THE CASE OF PUERTO RICO**

ABSTRACT

The single most important issue drawn from the conclusions of this report, and the analysis of the events that have transcended since commonwealth health care reform began, is how the commonwealth will deal with the current fiscal crisis in the immediate future. With federal subsidies from United States health reform not materializing; no major increase in the Medicaid cap in sight; and the difficulty in obtaining an increase in reimbursement for hospital care provided to Medicare beneficiaries, financing health care reform will rely principally on commonwealth funds. Therefore, solutions must be generated from within the system.

Recommendations are made as to the direction health care reform might take in Puerto Rico. The recommendations are framed within three criteria: the need for efficiency; the political viability of the recommendations; and, the potential for short-term results.

- The Puerto Rico Insurance Code must be reformed to allow health insurance companies to become health care providers.
- Require that contractors assume responsibility for both inpatient care facility and primary care centers; and be required to organize as a fully-integrated delivery system.
- The government may also contract with provider organizations that integrate an insurance product to their provider system.
- The Puerto Rico Health Insurance Administration (PRHIA) should become a conduit for negotiating payment rates; and, assume the responsibility for monitoring the utilization and quality of the health care provided.
- An integrated health information system must be designed to collect, analyze, and publish results of continuous monitoring of the reformed health care system. This system shall be the responsibility of the commonwealth health department. It will be coordinated centrally, and operated as a decentralized and fully accessible information network.

The recommendations are therefore oriented to advancing effective health care reform in Puerto Rico, while preserving the principal government policy of privatizing its role in delivering health care, and maintaining its commitment to universal access and coverage. It is the purpose of the commonwealth health department to limit its role to that of purchasing quality health care and monitoring its delivery, and avoid the need to establish a rate-setting commission to regulate insurance payment rates. Using these recommendations as guidelines should preserve that role.

***COORDINATING HEALTH CARE REFORM
WITH THE US TERRITORIES:
THE CASE OF PUERTO RICO***

EXECUTIVE SUMMARY

GRANT NUMBER: 18-C-90240/2-01

August, 1995

Submitted by:

***INSTITUTO DE ADMINISTRACIÓN Y POLÍTICA
DE SALUD DE PUERTO RICO, Inc.***



COORDINATING HEALTH CARE REFORM WITH THE U.S. TERRITORIES AND POSSESSIONS: THE CASE OF PUERTO RICO

GRANT NUMBER: 18-C-90240/2-01

EXECUTIVE SUMMARY

Introduction:

The 1992 gubernatorial elections in the Commonwealth of Puerto Rico signaled the initiation of a major transformation in the historical role of the government, as provider of health services to the medically-indigent population of Puerto Rico. Employing privatization strategies, the government changed both the manner in which health care is financed and delivered.

Historical Background:

In 1952 Puerto Rico inaugurated a new relationship with the United States. The Commonwealth of Puerto Rico was born with a new constitution and the first governor to be elected by the people. At the same time, Operation Bootstrap was initiating; an economic program designed to jump start the Puerto Rico economy in its early stages. In less than twenty years Puerto Rico underwent two major transformations: the agricultural economy yielded to an industrial economy; and Puerto Rico completed a rapid epidemiologic transition, substituting infectious and communicable diseases with acute and chronic conditions.

Within this economic development model, health care remained a responsibility of the government; a public utility through which the attainment of health represented a necessary resource for economic productivity, especially during this period of rapid socioeconomic development. As such, in 1954 the government initiated a major overhaul of the health care system, which culminated in the design and implementation of the regionalization model. This model provided for the delivery of health services through a network of primary care centers located in each of the Island's 78 municipalities; general acute care hospitals to serve as secondary care facilities; regional referral centers for specialized care in each of the six health regions; and a sub-specialty care medical center in San Juan, the capital.

The government was the principal provider of health care, and financed its operations through public funds. In fact, the regionalization model could be defined as the first managed care program developed in Puerto Rico, as early as 1954. The model comprised a three-level integrated system of care, with a referral mechanism linking the three levels, and a financing model in which

proportionally more funds were to be allocated to primary care facilities in order to promote health, prevent disease, and reduce the need for hospital care. It provided the appropriate structure for managing a varying epidemiology as the Island's economy, social structure, and consequently risk factors changed.

As the regionalization model was beginning to evolve, the private sector was also beginning to grow. The availability of Hill-Burton funds served to help develop a private hospital infrastructure which paralleled and later surpassed the government system in number of beds. Medicare helped pay for graduate medical education, and hospital capital investments in technology, and more facilities. The shift to inpatient care was swift as was the increase in the cost of providing health care. The government found itself allocating resources to public hospitals and paying less attention to the needs of primary care community health centers.

As this pattern continued, municipal mayors emerged as the source for financing the operation of primary care centers located in their municipality. Many municipalities spend upwards of 50 percent of their budget on health care. The political value of these centers became rapidly evident. Mayors were fulfilling the health care needs of their constituents, albeit for acute care rather than preventive care which these centers were supposed to provide, and municipal elections were won on the visibility a mayor achieved in financing care for the medically indigent. The link between the primary care center and the rest of the regional network was broken, and the model never quite received the necessary support to succeed.

Economic Development and the Rise of the Puerto Rico Public Health Care Sector

Since 1950, Puerto Rico has successfully developed an industrial and commercial economy, with concurrent urbanization. Population and total employment have grown by 60 percent since 1950 and now over 70 percent of the population live in urban areas. However, the proportion of citizens who are unemployed or have low incomes remains persistently high. Furthermore, Puerto Rico has few firms which provide health insurance to their employees.

Over 80 percent of the labor force is regularly employed. The majority of jobs are in government, services, commerce, and manufacturing, accounting for 22 percent, 22 percent, 20 percent, and 16 percent of employment, respectively. However, only 11 percent of all private employers provide health insurance and 88 percent of firms providing insurance employ 10 or more workers. The majority of private employers are small, with 77 percent of all firms employing nine or fewer workers and 96 percent of firms providing less than 100 jobs. Table 1 presents data on employment and health insurance.

Many working residents and their dependents cannot afford to purchase health insurance, consuming their resources on other essentials. During the period 1991-1992, 43 percent of the

residents received governmental nutritional assistance in the form of cash payments. Table 2 presents recent income and health insurance data.

Table 1
Firms Providing Health Insurance

Number of Employees	Number of Employers	Employers Providing Health Insurance	Percent of Employees Provided Health Insurance
<9	34,436	565	2%
10-49	7,230	2,546	35%
50-99	1,162	863	65%
100-249	893	354	40%
250-999	597	407	68%
>1,000	79	74	94%
TOTAL	44,397	4,698	11%

Source: Puerto Rico Institute for Management and Health Policy.

Table 2
Employment, Income and Costs of Insurance Comparison
Puerto Rico vs. United States - 1990

	UNITED STATES	PUERTORICO
Unemployment Rate	6.3	20.4
Payroll per Worker	\$31,193	\$12,700
Median Family Income	\$35,225	\$9,988
Percent Families Earning \$ 25,000 or more	67%	16%
Percent of Families Receiving Food Stamps or Equivalent Cash Payments	9%	43% (1992)
Private Health Insurance Cost (premium per insured)	\$763	\$596
Uninsured + Medicaid Rate	24%	55%

Source: The Puerto Rico Institute for Management and Health Policy; Statistical Abstract of the United States 1993.

Demographic and Health Status Trends in Puerto Rico

The Commonwealth's demographic and health status trends reflect the Island's economic transformation. Two specific trends will continue to drive up medical care costs. First, the fertility rate, though declining, remains 16 percent higher than for the mainland and teenage pregnancies continue at a significantly high rate, contributing to the Islands' high infant mortality rate, which remains 38 percent higher than the United States.

The second significant trend that will contribute to increased medical care demand and expenditures is the increasing size and proportion of residents aged 65 and older. This population group has grown 175 percent since 1960, and represents 10 percent of the population (1990) data.

Other health status indicators indicating underlying factors that may adversely affect health care utilization and expenditures include a significantly higher rate of diabetes and diabetes-related mortality than the mainland, an HIV-related death rate 59 percent higher than the mainland, and a homicide rate 60 percent higher.

Puerto Rico's Health Care Infrastructure and Utilization¹

To address the medical needs of a large publicly covered population Puerto Rico state and municipal governments operate a large health care system. The government employs 30 percent of the Commonwealth's physicians and operates 40 percent of the hospital beds on the Island.

The public community health centers and regional hospitals provide 38 percent of all medical care visits and 40 percent of all hospital days. The Islands' private sector health system insures the remaining 40 percent of the population.

Health Care Financing in Puerto Rico

Federal funds for Medicare and Medicaid reimburse 30 percent of health care costs in Puerto Rico. The Commonwealth and municipal governments pay for 30 percent of the Island's health care expenditures. Twenty-nine percent of health care expenditures are paid by private insurance. Individual out-of-pocket expenditures account for the remaining 11 percent.

The public sector finances 80 percent of its health care budget from Commonwealth and municipal funds. Federal Medicaid funds provide 10 percent of the public sector's resources, while Medicare generates 4 percent. This contrasts with Medicaid funding in the mainland where states receive an average of 60 percent of funds from the Federal Medicare Program. Private insurance and out-of-pocket reimbursement provide the remaining 6 percent.

The private sector is heavily dependent upon Medicare, obtaining 40 percent of its revenues from this source. Forty-six percent of expenses are paid for by private insurance, while individuals contribute 14 percent of reimbursement with out-of-pocket payments. Table 3 presents a national Health Accounts Matrix, designed to enable comparisons between the health care sectors of Puerto Rico and the United States mainland.

One-hundred percent of Medicaid receipts are received and used by the public sector, as private sector providers are not accessible to this population. Only 9 percent of Medicare payments are received by government providers. Medicare public payments result from approximately 35 percent of Medicare beneficiaries not enrolling in the Supplemental Medical Insurance program (Part B) for physician services, instead relying on the public clinics for these services. On the mainland, in contrast, approximately 95 percent of all eligible participants enroll in Part B.

1 This section is based upon the grant proposal and first report submitted to the U.S. Health Care Financing Administration entitled, Coordinating Health Care Reform with the U.S. Territories and Possessions: The Case of Puerto Rico. Puerto Rico Institute for Management and Health Care Policy.



Table 3
Puerto Rico Health Expenditures by Source of Funds and Type of Expenditures
 Puerto Rico, 1990
 (Dollars)

Type of Expenditure	Total Government + Private	Sources					
		PRIVATE			GOVERNMENT		
		Consumer			Total	Federal	State and Local
		Total	% Out of Pocket	Private Insurance			
National Health Expenditures	2,507,581,768	1,418,721,794	260,898,000	1,157,823,794	1,088,859,974	606,836,071	482,023,903
Health Services & Supplies	2,498,568,561	1,418,721,794	260,898,000	1,157,823,794	1,079,846,767	604,822,864	475,223,903
Personal Health Services	2,362,615,935	1,418,721,794	260,898,000	1,157,823,794	943,894,141	468,670,238	475,223,903
Hospital Services	672,267,208	114,227,794	-	114,227,794	558,039,414	212,786,092	345,253,322
Physician Services	814,142,839	531,812,000	106,362,000	425,450,000	282,330,839	222,761,143	59,569,696
Dental Services	85,587,190	84,382,000	16,876,000	67,506,000	1,205,190	1,205,190	-
Other Professional Services	62,383,400	-	-	-	62,383,400	4,079,837	58,303,563
Drug/Medical/N.D.	702,872,062	688,300,000	137,660,000	550,640,000	14,572,062	2,474,740	12,097,322
Nursing Home Care	2,367,393	-	-	-	2,367,393	2,367,393	-
Home Health Care	22,995,843	-	-	-	22,995,843	22,995,843	-
Gov. Public Health Activity	135,952,626	-	-	-	135,952,626	135,952,626	-
Construction	9,013,207	-	-	-	9,013,207	2,213,207	6,800,000

Source: Balances and Assignments of Federal Contributions for Fiscal Year 1990-91, Budget Report of Primary Care Centers Receiving Federal Funds, Cost Report of the Department of Health, Department of Labor and Human Resources, Home Health Agency Cost Report Period 1989-90, Report of the Office of Budget and Management.

Total health care expenditures in the Commonwealth grew at an average annual rate of 11 percent during the late 1980s and these expenditures now account for 11 percent of the Gross Domestic Product of the island. The public and private sectors experienced similar double digit growth rates during this time of approximately 11 percent.

Puerto Rico Health Care Reform

Background:

Puerto Rico has a dual health care system, the public and the private sector. In the private sector, access to health care depends on the financial capacity of the individual to cover the cost of health services or purchase health insurance with his or her own resources. The Commonwealth Department of Health has the responsibility to provide health services for the medically indigent population. The public sector serves approximately 50 percent of the population (1.7 million persons). In the private sector there are 53 Hospitals. In addition, the capital city of San Juan operates a separate public health care system comprising a tertiary care teaching hospital, a long-term care facility, and nine primary care centers. The private sector serves the privately insured population through a network of 53 hospitals and office-based physician practices.

Several problems have chronically affected the public health system, including budget insufficiency, increasing cost of technology, excessive bureaucracy, and government centralization. In January

of 1993, a new government administration took office in Puerto Rico and immediately initiated a major health care reform program. Two assumptions, that the private sector provides higher quality health care, and is more efficient than the public health system, served as principal arguments for reform. The goal espoused by the administration is to create a single health care system that is accessible to the entire population, regardless of financial status. The reform program consists of a dual strategy; privatizing government health care facilities, and purchasing private health insurance for the medically indigent.

Insured Population:

In the 1990 Census, the population of Puerto Rico was estimated at 3.5 million persons. From this population approximately 1.7 million persons are insured. Approximately 1.2 million persons have private health insurance; 280,000 have Medicare Part A and B; and 185,000 are public employees who have access to health insurance with a government contribution for the payment of their insurance.

The remaining 50 percent of the population receive health care from the state through the Department of Health. From this population 900,000 persons qualify for Federal Medicaid and 300,000 participate in the State Medicaid Program. There are 180,000 persons who have either Medicare Part A or Part A and B, but who are also recipients of either federal or state Medicaid. The remaining 500,000 persons are the "floating population" that have health insurance according to their employment status, and rely on the commonwealth government for medical assistance while unemployed and uninsured. It is important to point out that the federal match for the Medicaid program is set at 50 percent, with a federal cap set at \$122.5 million. This represents less than 20 percent of the commonwealth budget for health services in the public health care system.

Reform Legislation:

Health care reform in Puerto Rico follows two parallel processes. Act 103 of 1985, as amended, authorizes the commonwealth secretary of health to privatize the operation of government health care facilities. This policy initiative has the objective of removing the government from its traditional role of provider of health services. In doing so, the department of health attempts to generate substantial savings through its privatization strategy. Health care facilities are privatized through a bidding process. The company who obtains the contract will be responsible for the entire operating costs of the facilities.

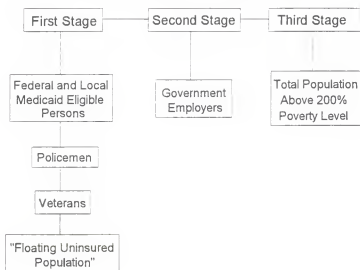
The second component of health reform is the creation of a private insurance plan for the medically-indigent population. This plan which comprises the major thrust of the reform, is created through Act 72 of September 7, 1993. This legislation created the Puerto Rico Health Insurance Administration (PRHIA); a public corporation with full authority to implement, administrate, negotiate, and contract health insurance coverage for all eligible residents of Puerto Rico,

particularly the medically-indigent. Under Act 72, the medically-indigent have access to hospital and medical care regardless of their economic status or payment capacity.

Health Care Reform Plan:

The PRHIA has developed a three stage plan to develop health care reform (Figure 1). The first stage will provide health insurance to the Department of Health beneficiaries which include federal and local Medicaid eligible persons; policemen, their spouses and children, who choose to participate; veterans, their spouses and children certified by the federal Medicaid program; and “the floating” uninsured population. This stage will be developed by providing health insurance coverage to all beneficiaries in two health regions per year. The first stage began on February 1, 1994. The second stage will begin in 1995 and will include all government employees in a third region. The final stage will include the entire Puerto Rico population above 200 percent of the poverty level.

Figure 1
Health Care Reform Plan



In the first stage of the health reform PRHIA has divided its responsibilities with the Department of Health. The Department of Health is responsible for privatizing the health facilities, determining eligibility of individuals to participate in the health insurance plan, and selecting the areas for the pilot projects. PRHIA must examine all aspects that affect access, quality, cost control, and utilization of health services, as well as to protect the rights of beneficiaries and health care providers.

Specifically, Act 72 establishes that PRHIA, must assure free choice of health insurance plan between two or more insurers selected by PRHIA, and within the health region of the enrollee's residence. PRHIA is applying this mandate for the first stage only. For stages two and three the right of free choice of a health insurance plan shall be assured the beneficiary immediately. Blue

Cross of Puerto Rico won the first two contract bids held, and is the sole insurer per project. Triple S (Blue Shield of Puerto Rico) won the third bid and is implementing an IPA-type project, given the proportionally larger number of physicians available in private practice. There are no exclusions for pre-existing conditions, or waiting period at the time of granting coverage to beneficiaries. Also, no deductibles will be charged for primary care services. Moreover, the contracted health plan will act as a secondary payor in the case that an eligible individual has additional health insurance.

Table 4
Plan Compliance Evaluation Program Overview

OPERATIONAL AREAS AND SUB-AREAS	REVIEW AT	POINT VALUE
A. Eligibility and Enrollment		120
- Enrollment Process	Insurer	40
- Choice of Provider	All PCCs	20
- Eligibility	In House	40
- Conversion Clause	Insurer	20
B. Services to Beneficiaries and Providers		60
- Summary Plan Description Booklets	Insurer	20
- Community Orientation Program	Insurer	20
- Beneficiary Plan Satisfaction Survey	In House	20
C. Coverage of Benefits (Contracting)		40
- Contracting of and by PCCs	Insurer/All PCCs	20
- Contracting of Specialty Providers	Insurer	10
- Contracting of Emergency and Ambulance Services	All PCCs	10
D. Reporting		150
- Required Reports/Data Submitted	In House	80
- Reports/Submitted on Time	In House	30
- Quality of Reports	Insurer/PCCs	40
E. Financial Requirements		80
- Record Keeping and Controls	Insurer	20
- Financial Statements	In House	20
- Plan Experience	Insurer	40
F. Rules and Regulations		40
- Bulletins of Three Specials Legal Issues	Insurer	10
- Notice Regarding Denial of Services	All PCCs	10
- Beneficiary Medical Records	All PCCs	20
G. Plan Initiatives		80
- Secondary Payor	Insurer/All PCCs	30
- Second Surgical Opinion	All PCCs	30
- Special Initiative	Insurer	20
H. Quality, Appropriateness, Timeliness, and Cost		90
- Quality of Services	Insurer/All PCCs	30
- Appropriateness of Services	All PCCs	20
- Timeliness of Payment for Services	Insurer	40
I. Utilization		60
- Hospital Admissions	Insurer	30
- Treatment of Chronic Conditions	Insurer	30
J. Fraud and Abuse		20
- Effectiveness of Insurer Program	Insurer	20
K. Accessibility		200
- Physicians/Patient Ratios	All PCCs/Insurer	60
- Patient Care Review	All PCCs	110
- Waiting Time for Ambulance	All PCCs	30
L. Grievance Handling		60
- Timeliness of Replies	Insurer	40
- Advice of Further Appeal Rights	Insurer	20

TOTAL POTENTIAL POINT VALUE FOR CONTRACT YEAR:

1,000

NOTE: The overview given above is based on the February 1, 1994 version of the protocol for the Plan Compliance Evaluation Program. Standards for evaluation are revised.

Evaluation Program of Health Care Reform:

Table 4 shows the Plan Compliance Evaluation Program: the operational areas, and the point value of the evaluation. Performance by the insurer is measured through on-site audits at the insurer's administrative offices, at the offices of contracted providers and through the data submitted by the insurer to PRHIA, on a sampling basis. Periodic evaluations will include assessments of quality, need, accessibility, utilization, cost of services, eligibility and enrollment of beneficiaries, services to beneficiaries and providers, coverage of benefits, financial requirements, rules and regulations, plan initiatives, fraud and abuse, and grievance handling. All criteria and their standards will be scored to a total of 1,000 points per year, per contract. The insurer has an obligation to submit encounter data, as well as to assure its financial stability. All health plans that are contracted must be certified for solvency.

Eligibility and Deductibles:

The eligible population for this first stage are those persons between 0 - 200 percent of the local poverty level. The local poverty level is \$401 for a one person family and \$95 for any additional person. Those with income up to \$791 per month are covered.

Table 5
Deductibles

Services	51% to 99%	100% to 130%	131% to 200%
Hospitalization: - Per admission - Per admission (mental) - Nursery	\$3.00 \$3.00 \$0.00	\$5.00 \$5.00 \$0.00	\$15.00 \$15.00 \$0.00
Ambulatory Visits to: - Primary Physicians - Specialist - Sub-Specialist - Pre-natal services	\$1.00 \$1.00 \$1.00 \$0.00	\$2.00 \$2.00 \$2.00 \$0.00	\$2.00 \$3.00 \$4.00 \$0.00
Clinical Laboratories	\$0.50	\$1.00	\$2.00
X-Rays	\$0.50	\$1.00	\$2.00
Physical Therapy	\$1.00	\$1.00	\$2.00
Respiratory Therapy	\$1.00	\$1.00	\$1.00
Specialized Diagnostic Test	\$1.00	\$1.00	\$5.00
Emergency Room Services	\$1.00	\$2.00	\$5.00
Immunizations	\$0.00	\$0.00	\$0.00
Well Baby Care	\$0.00	\$0.00	\$0.00
Dental Services: - Preventive (child) - Preventive (adult) - Restorative	\$0.00 \$1.00 \$1.00	\$0.00 \$2.00 \$2.00	\$0.00 \$3.00 \$3.00
Prescription Drugs (per drug)	\$0.50	\$1.00	\$3.00
Maximum per Ambulatory Encounter	\$3.00	\$5.00	\$7.00

Note: Deductibles do not apply to beneficiaries that fall in a category under fifty percent (50%) of medical indigence.

The medically indigent population pay deductibles according to the amount of the income level of the enrollee. Beneficiaries that fall in a category under 50 percent of medical-indigence are not required to pay deductibles. Three levels of deductibles have been designed according to the medical indigence level. The first level is from 51 - 100 percent, the second one from 101 - 130 percent, and the last one from 131-200 percent (Table 5). According to Medicaid, nursery, prenatal care services, immunizations, well baby care, and preventive child dental services do not pay any deductible. In the future, those who become eligible for coverage between 130 - 200 percent of medical indigence shall be granted subsidies for payment of premiums. At the moment, those individuals who are under 200 percent of medical indigence will receive full coverage under the contracted health insurance plan.

Type of Coverage:

The health plan must offer two different types of coverage: basic coverage, and special coverage. The benefits of basic coverage include: hospitalization services, visits to physicians, surgical services, maternity services, preventive services such as annual health evaluations including eye tests, hearing tests, nutritional screening, Pap smears (one per year), mammograms, well baby care during the first two years of life, immunizations, and PSA for the screening of prostate cancer, among others; limited mental health services that include detoxification and ambulatory services, diagnostic test services, clinical laboratory tests, x-rays, physical therapy and respiratory therapy, emergency room services, dental services, prescription drug services, eye care, and ground, maritime, and air ambulance services. The benefits for the special coverage include: cardiovascular, neurovascular, neurosurgical procedures, peritoneal dialysis and hemodialysis, neonatal intensive care unit services, services for treatment of Cancer, specialized diagnostic tests such as computerized tomographies, M.R.I., cardiac catheterization, nuclear tests, invasive cardiovascular procedures, lithotripsy, SPECT, endoscopies, treatment for AIDS, tuberculosis, leprosy, pacemakers, valves, other artificial devices for the heart, and hospital services for substance abuse. The benefits of the basic coverage will be offered through Primary Care Centers located at each municipality and IPA practice.

Each Primary Care Center shall be staffed by primary care physicians, including, family practitioners, internists, pediatricians, obstetricians/gynecologists, and general practitioners. In the same manner, it must have specialist physicians, according to the morbidity and mortality rates of the area. These services must be under the basic coverage. They are also required to have support providers such as dentists, optometrists, clinical laboratories, x-ray facilities and pharmacies. The special coverage is offered through a network of participating providers who have contractual agreements with the insurer for rendering such services throughout the Island.

Cost per patient fluctuates currently between \$603.00 and \$620.00, per year. The total annual cost for the insurance will be approximately \$1.025 billion which is \$200 million more than the actual cost to the Department of Health. For these groups, PRHIA shall pay the insurer a premium for individual or family coverage based upon the contracted benefits. The current monthly premiums

fluctuate from \$52.76 to \$58.30 for individual coverage, and from \$149.45 to 155.40 for family coverage.²

Table 6
Basic and Special Coverage of the Puerto Rico Health Reform

BASIC COVERAGE	SPECIAL COVERAGE
Hospital Services	Cardiovascular and neurosurgical procedures.
Medical and Surgical Services	Hemodialysis and peritoneal dialysis treatment
Maternity Services, including Prenatal and Post-partum Services	Neonatal intensive care unit services
Preventive Services	Radiotherapy, cobalt, chemotherapy and radioisotope's therapies and treatments
Limited Ambulatory Mental Health Services and up to 30 days of hospitalization per year for mental conditions, substance abusers' detoxification, treatment and rehabilitation services at the ambulatory and hospital levels.	A diagnostic test such as: - Computerized Tomographies - Magnetic Resonance Imaging - Cardiac Catheterization - Nuclear Test - Invasive Cardiovascular Procedures - Lithotripsy - SPECT - Endoscopies and others
Clinical Laboratory Test, x-rays, Electrocardiograms, Pulmonary Function Test, Electroencephalograms, Stress Test.	AIDS treatment from a maximum of \$25,000.00 per year, for ambulatory services and a maximum of \$25,000.00 per year, for hospital services.
Physical Therapy and Respiratory Therapy.	Pacemakers, valves and other instruments, apparatus ar, artificial device for the heart.
Emergency Room Services	Hospitalization services for substance abuse limited to a maximum of thirty (30) days for life.
Dental Coverage that includes	
Prescription drug services for acute conditions as well as for chronic conditions	
Ground, Maritime and Ambulance Services	

San Juan Health Care System

Model Description:

The capital city of San Juan operates its own health care system, and is fiscally and administratively independent from the commonwealth health department. The San Juan health department operates a tertiary care hospital, nine community health centers, and a skilled nursing facility. The nine community health centers are located in areas inhabited by the lower socio-economic population sector. The San Juan Health Care Model, created through Act 99 of May 25, 1995, is based on the "managed health care" concept with an emphasis on prevention, and designed to

operate within the network of primary care centers in San Juan. The principal features of the plan are as follows:

1. The San Juan municipality will contract with a private insurer to provide health insurance to the population that uses the municipal health system. The insurer or a private health facility administration corporation will be responsible for the administration and operation of the current health services facilities. In the case of the Dr. José S. Belaval primary health center in Barrio Obrero, it will continue to be managed by the Community Board of Directors. This facility operates under a Section 330 U.S. Public Health Service federal grant. The community board of directors will negotiate reimbursement for health services directly with the insurer.
2. The model contemplates using the nine currently available primary care centers in different areas of San Juan. In the places where currently available facilities do not have the capacity to attend the needs of the population, the insurer will arrange the extension of the supply of services.
3. The private insurer will develop patient care protocols and services, as well as referral mechanisms that will assure the continuity and quality of the services offered at all levels of the system.
4. Each primary health care center should be staffed by teams comprising primary care physicians, nurses, health educators, social workers, nutritionists, psychologist, and community outreach workers.
5. Services that are not available at the primary health care center will be contracted by the managed care organization (MCO) with external providers.
6. The user will choose the primary care physician from those available by the MCO. This primary care physician (PCP) will be that person's physician and will coordinate all health care for the patient except in case of an emergency.
7. The Antillas Medical Social Center will have available at least 1,075 beds exclusively to attend patients referred by the San Juan municipality for skilled nursing or convalescent care.
8. The private insurer will keep an integrated information system according to the requirements established by the Health Department of San Juan.
9. The primary care center and the Municipal Hospital will continue to operate categorical programs financed with federal funds according to the proposals and rules established for each program.

Conclusions

Health Status:

- The overall mortality rate is lower in Puerto Rico than in the United States. This rate decreased constantly until 1984 when it reached its lowest point at 6.6 per 1,000 population. Since 1985 the mortality rate has increased to 7.4 per 1,000 population. The age adjusted mortality rate is also lower in Puerto Rico than in the United States.
- Heart disease continues to be the principal cause of death in Puerto Rico as well as in the United States. Although the rate in Puerto Rico is significantly lower.
- Neonatal and Post-Neonatal Mortality is twice as high in the public sector than in the private sector. major discussion is pending, on whether quality of care or socioeconomic status explain these large differences.
- AIDS in Puerto Rico poses a major public health and financial problem. The rate of growth of AIDS in Puerto Rico requires drastic measures to prevent and reduce the spread of the disease. One of the challenges is that the principal mode of transmission is by intravenous drug users which are hard to reach and educate.

Expenditures and Financing of Health Services:

- In Puerto Rico, total health expenditures in 1990 amounted to \$2.5 billion, which represented 10.9 percent of the Gross Domestic Product (GDP). The major sources of funds were: private insurance, \$1.1 billion, federal government \$606 million, state government \$482 million, and out of pocket expenses \$261 million. The three main components of expenditures are: (1) physician services, which accounted for 32.4 percent of total expenditures, (2) hospital services responsible for 27 percent, and (3) drugs responsible for 28 percent of total expenditures.
- The 1990 per capita expenditures for health services and supplies in Puerto Rico was \$708 compared to the United States which accounted for an expenditure of \$2,587. Expenditures in hospital services in Puerto Rico amounted to \$190.53 per capita in contrast to \$1029 for the U.S. population.
- The Medicare Program in Puerto Rico financed, in 1990 approximately \$460 million of the total health care expenditures. The total federal share is 24.2 percent for the state and local share. Private insurance financed 46.2 percent of total expenditures, which represents the most important source of funds.

- Diagnoses related to conditions of the heart and respiratory problems explain more than 65.0 percent of the discharges attributed to the ten most frequent DRGs in the Medicare population of Puerto Rico.
- The public sector reflects a skewed distribution of the more complicated cases toward the regional hospitals. This skewness may reflect the organization of the system, and the possibility of transferring more complicated patients from private hospitals to the larger public hospitals.
- The medically indigent population in Puerto Rico is heavily dependent upon government subsidies and facilities to obtain access to health care. Current and future health care needs will continue to be met by public financing, because the private sector is not providing sufficient jobs with insurance benefits, or adequate income for many employees to purchase health insurance. This will compromise an already critical fiscal situation for the commonwealth government, in which the increase in public spending for health care is growing at twice the rate of government revenues. Current health care reform proposals in the mainland United States envision private sector and market oriented solutions, neither anticipating nor considering the implications of their solutions on Puerto Rico and other communities with a significant public sector role, and a large medically indigent population that lies below the poverty level.
- The current cost of purchasing health insurance for the medically indigent, exceeds the total expenditures the health department incurs at present under its self-funded model, assuming the cost of premiums remains the same when projected to the 1.7 million total enrollees. Thus, the argument that providing private insurance coverage would make the cost of care cheaper, and would reduce government expenditures has not materialized. This excludes the additional cost of operating public health care facilities that the health department is not able to lease to private contractors.
- Current U.S. mainland state health care reform initiatives focus on restructuring the health insurance market, but depend on the delivery of health care by the private sector. In following this trend, Puerto Rico must examine the potential effects of privatization of health care on the Island populations' health status, as well as the economy. The fact that the medically indigent population is poor creates an imminent problem of adverse selection, as this population is at a higher health and utilization risk than the population that traditionally purchases private health insurance. Consequently, the cost of insurance premiums will increase dramatically to absorb the increase in cost produced by the added population of medically indigent consumers. It may then become necessary to regulate the insurance

market by requiring a community rate. The key here is to determine how much private sector rates might increase if public beneficiaries were included in the community pool. The impact of this community rate on employers and current purchasers of private health insurance must be analyzed.

- Reform plans based on insurance-driven market approaches in Puerto Rico will rely on subsidy arrangements. A disproportionate share of Puerto Rican families could qualify for subsidy assistance if not a 100.0 percent subsidy for the purchase of insurance. At present no analysis has been conducted to measure the magnitude of subsidies under different reform scenarios. This is a critical analysis, given the potential economic impact on employers, the commonwealth government, providers, and the federal government. With fiscal retrenchment on the current federal agenda, the issue becomes even more critical, as Puerto Rico will depend on federal transfers to cover the population that qualifies for assistance.

Key Policy Issues for Health Care Reform in Puerto Rico

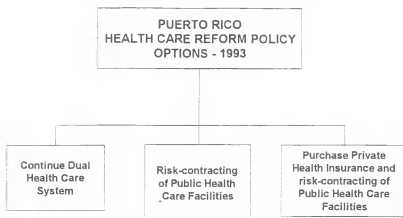
Integrating the resources of the public and private health care sectors in Puerto Rico, while requiring a monumental effort, is a decision that had to be made. Escalating costs of providing health care have resulted from the lack of coordination and planning by both the commonwealth health department and the private sector. This, in turn, has resulted in duplicate health care facilities, technology, and human resources, as well as an uneven distribution of these resources that affects principally the medically indigent population, which is served mainly by the public sector. The decision by the commonwealth administration to initiate health care reform by providing private health insurance coverage to the medically indigent, and privatizing the operation of public health care facilities, is based on the assumptions that quality and efficiency are greater in the private health care sector, and thus by privatizing, these deficiencies may be corrected.

In addressing health care reform, the commonwealth government faced essentially three policy options:

1. continue operating a dual health care system, in which the government would maintain its role as provider through its public health care infrastructure;
2. privatize the public health care system by purchasing private health insurance coverage for the medically indigent, and privatizing the operation of its health care facilities;
3. privatize the operation of public health care facilities through risk-contracting mechanisms.

Figure 5 illustrates the three policy options.

Figure 5
Puerto Rico Health Care Reform Policy Options 1993



Under the policy option in which the government continues to finance and provide health care through its public health care infrastructure, the assumption is that it can effectively manage its operation to provide quality care in a cost-effective manner. This policy is the equivalent of self-insuring; the government will continue its role of providing care and will monitor both quality and cost in order to achieve a cost-effective operation of its health system.

Several reasons preclude this policy option from being adopted. As the private health care sector matured during the early 1970's, it became a competitor of the public health care sector. Private sector access to capital for financing construction and technology acquisition allowed private hospital and medical providers to grow and attract patients with private health insurance. This left the medically indigent under the care of the public health care system.

Salaries became more competitive in the private sector. Also, private health insurance moved nearly 75.0 percent of physicians to generate their principal source of income in the private sector. Ironically, while Medicare helped finance the cost of graduate medical education, physicians in Puerto Rico are trained in the public sector, but then practice in larger proportion in the private sector, which also draws the larger portion of Medicare beneficiaries.

The public health care sector, as other government agencies, is a source of massive employment. Thus, payroll operating costs preclude both efficiency as well as the availability of funds to acquire technology and supplies.

Certificate of Need legislation was approved in 1979 to help curb the cost of health care attributed to excessive technology acquisition. Again, the fact that privately-insured patients and government-insured patients were care for by different sectors, resulted in duplicate technology and facilities. Thus, the proliferation of hospital acute care beds, community laboratories, community

pharmacies, and CT Scanners, as well as magnetic resonance imaging (MRI) systems, continued despite this legislation.

A decision by the commonwealth government to continue as a provider of health care would require solutions to these issues. And, the sole issue of closing hospital beds to correct for an excess of 30-35 percent of acute care beds in both sectors will not be resolved soon, as there are powerful forces that operate both in the public sector, e.g., employment, and the private sector, e.g., investment and competition. In any case, this policy option would constitute a long-term solution. The political scenario that brought health care reform to the spotlight demands a policy that is able to respond in the short-run.

A second policy option calls for the commonwealth health department to privatize the delivery of health care through risk-contracts. Under this arrangement, the government would contract with private management firms to operate public health care facilities based on either a per capita payment or a block grant, both risk-adjusted to generate efficiency to the health department. This policy is consistent with the current need for the government of reducing its budget. By contracting with private management firms, the government provides employment security and does not incur operating costs. The management firm would assume the risk of generating a profit by achieving greater efficiency in the operation of the facility, and attract privately-insured patients. While the adoption of this policy would be able to produce a short-run improvement in efficiency, and thus at least slow down the increase in total health care costs, it does not resolve the issue of freedom of choice offered by the administration as an electoral campaign promise. This offer of freedom of choice was packaged in a promise to provide private health insurance to the medically indigent, which goes beyond the scope of this option.

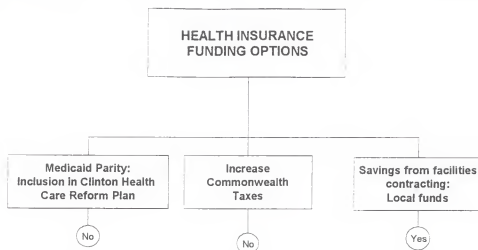
The third policy option considered by the administration consisted of a combination of purchasing private health insurance for the medically indigent, and adopting the second policy option discussed, which is to contract the operation of public health facilities to private management firms on a risk basis. This option, which was originally proposed and adopted in mid-1993 fulfills the campaign promise of private health insurance for the medically indigent.

Given the adoption of this policy, the question becomes one of paying for the health insurance benefit. It was assumed that savings from not having to operate facilities now contracted, and the inclusion of Puerto Rico in United States health care reform, the Clinton Plan, would generate enough money to fund the insurance benefit. Figure 6 illustrates funding options available.

As President Clinton's sweeping health care reform plan was not approved by Congress, it cannot be expected that parity under the Medicaid program, or a transfer of federal subsidies will occur in the short-run.

Another source of income for the commonwealth would be to increase personal and corporate income taxes to pay for the insurance benefit. However, in late 1994, the commonwealth enacted tax reform which actually reduced income tax rates across the board. Therefore, it does not appear likely that any increase would be enacted, specifically going into an election year.

Figure 6
Puerto Rico Health care Reform Through Private health Insurance



Thus, funding the insurance benefit will rely on commonwealth funds. With a tight credit situation and current funds already allocated to other agencies, the available option appears to be a requirement by the commonwealth health department that all health insurance companies community-rate in order to bring government costs down. This will have the immediate effect of increasing employer contributions to health insurance benefits without the expected subsidies that were to come from the Clinton health care reform plan. The fact that the medically indigent in Puerto Rico reflect greater health care needs make this population an adversely selected group in terms of health insurance. Thus, the potential need for community rating employer-financed insurance is imminent.

While precise measures of the performance to date of Puerto Rico's health reform plan have not been conducted, it is clear from the scenarios presented here that the cost of its implementation will soon exceed the government's ability to pay for it. Initiating such an ambitious reform plan relying on federal subsidies and Medicaid parity that did not materialize, has severely compromised not only the success of the reform plan, but the fiscal capacity of the commonwealth to continue the implementation of the plan.

Recommendations:

Recommendations are made as to the direction health care reform might take in Puerto Rico. The single most important issue drawn from the conclusions of this report, and the analysis of the events that have transcended since commonwealth health care reform began, is how the commonwealth will deal with the current fiscal crisis in the immediate future. With federal subsidies from United States health reform not materializing; no major increase in the Medicaid cap in sight; and the difficulty in obtaining an increase in reimbursement for hospital care provided to Medicare beneficiaries, financing health care reform will rely principally on commonwealth funds. Therefore, solutions must be generated from within the system. The recommendations are framed

within three criteria: the need for efficiency; the political viability of the recommendations; and, the potential for short-term results.

- The Puerto Rico Insurance Code must be reformed to allow health insurance companies to become health care providers.
- Require that contractors assume responsibility for both inpatient care facility and primary care centers; and be required to organize as a fully-integrated delivery system.
- The government may also contract with provider organizations that integrate an insurance product to their provider system.
- The Puerto Rico Health Insurance Administration (PRHIA) should become a conduit for negotiating payment rates; and, assume the responsibility for monitoring the utilization and quality of the health care provided.
- An integrated health information system must be designed to collect, analyze, and publish results of continuous monitoring of the reformed health care system. This system shall be the responsibility of the commonwealth health department. It will be coordinated centrally, and operated as a decentralized and fully accessible information network.

The original recommendation of the principal investigator of this project was to privatize the operation of the commonwealth health department's health care facilities. This decision would have the effect of removing the health department from the direct operation of the facilities, and assume a normative role of ensuring quality and monitoring utilization. In doing so, private contractors would be allowed sufficient time, at least 18-24 months, to convert the facilities into competitive ventures, mainly by recruiting physicians and other health professionals, and marketing services to private patients. There is precedent of this type of arrangement in Puerto Rico.

This recommendation is consistent with the more general call for integrating the public and private health care sectors in order to avoid the high cost of duplicate resources in a dual health system, as described earlier. After allowing contracted public facilities to adapt to a competitive scenario, the health department could then decide to purchase health insurance for the medically indigent and offer a true choice of private providers.

Alternatively, the health department could have contracted these facilities to insurance companies and allow for the creation of managed care plans, e.g. staff-model HMO's. In order to do this, however, the Puerto Rico Insurance Code must be reformed to allow insurance companies to become health care providers. Currently, provider organizations are allowed to sell their own health insurance plan to enrollees as health maintenance organizations (HMO's). Companies who obtain contractors to operate health care facilities should also be allowed to provide a health plan similar to those offered currently by several hospitals throughout the Island. These changes

would create a more competitive health care market place, such as that envisioned by the commonwealth government. The new organizations, which will contract with the commonwealth health department, would then compete on their ability to recruit physicians and other health care professionals, reduce their plan administration costs, and build strong community-based primary care networks.

The commonwealth health department will require that any organization bidding to operate public health care facilities, will agree to assume responsibility of both the geographic area's hospital and public primary care centers. This will guarantee that enrollees receive comprehensive care in a system that includes a full continuum of primary, general acute, and tertiary care, operated by a single entity.

The commonwealth health department will also require all contractors to include core public health services as part of primary care; including nutrition counselling, health education, social work, immunizations, and community outreach. These services have been found improve the effectiveness of medical care for people from low socioeconomic strata. They have been part of the design of community primary care centers in Puerto Rico since 1954.

The advantage of creating a managed care approach with public health care facilities is that Puerto Rico has at least one community primary care center in each of the 78 municipalities of the Island. This makes it easier for hospitals to form integrated networks with these centers, and manage the full continuum of care. As on the United State mainland, these community health centers are equipped with physician office space, an emergency room, as well as pharmacy, laboratory, and radiology services. They also provide core public health services, such as, social work, health education, nutrition counseling and outreach, which are critical for managing underserved high-risk populations.

The Puerto Rico Health Insurance Administration (PRHIA) was conceived as a government broker that purchases health insurance for the medically indigent through private insurance companies that compete on benefits coverage and price. In the competitive scenario we have described, PRHIA would expand its role to evaluate prospective contractors who will provide health care in addition to providing an insurance product. The ability and capacity of these organizations to become fully-integrated networks would be a principal role for PRHIA to assess. This obviously calls for a comprehensive health information infrastructure that would enable PRHIA to fulfill this task, and continuously monitor patterns of utilization, cost, and quality of care delivered by privatizing contractors. The development of this information system, which would be coordinated by PRHIA, and operated through a decentralized access network is the final recommendation of this report.

Specific recommendations on the development of this information system were originally formulated by an expert panel in 1992 by the General Health Council, a policy advisory body in

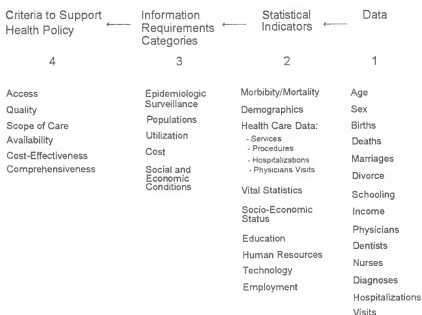
the commonwealth health department. They were again presented to the new government administration in 1993, during the design process of health care reform. To date, however, these recommendations have not been implemented, nor has any other option been considered to redesign the government's information system.

Our recommendations are based on the fact that an information system already exists in the commonwealth health department, and needs to be redeveloped, not replaced. Thus, the guiding principles recommended are as follows:

- the information system will operate through a uniform reporting system for all participants (providers, insurers, etc.);
- the system will provide for measuring and monitoring quality, as required by commonwealth, federal, and professional accreditation bodies;
- the system must be capable of communicating with federal information networks for reporting and documentation purposes;
- this health information system must be maintained by the commonwealth health department as its principal tool for monitoring utilization and quality through a privatized health care system. As such, this system will be considered part of the department's permanent infrastructure, and will not be subject to budgetary cutbacks.

The information system to be designed should contain the elements describes in Figure 7:

Figure 7
Elements of an Information System to support Health Care Delivery Decisions in the Commonwealth of Puerto Rico



The recommendations presented in this report were made taking into account the political scenario within health care reform is evolving in Puerto Rico, namely, the certainty that the private health insurance benefit cannot be taken away; fiscal viability, that is, that the cost of implementing health care reform must be lower than the current cost of delivering health care through a public system; and, that there must be short-term improvements in enrollee satisfaction measures, as well as expenditure reductions for the commonwealth government.

The recommendations are therefore oriented to advancing effective health care reform in Puerto Rico, while preserving the principal government policy of privatizing its role in delivering health care, and maintaining its commitment to universal access and coverage. It is the purpose of the commonwealth health department to limit its role to that of purchasing quality health care and monitoring its delivery, and avoid the need to establish a rate-setting commission to regulate insurance payment rates. Using these recommendations as guidelines should preserve that role.

**COORDINATING HEALTH CARE REFORM
WITH THE U.S. TERRITORIES AND POSSESSIONS:
THE CASE OF PUERTO RICO**

FINAL REPORT

GRANT NUMBER: 18-C-90240/2-01

August, 1995

Submitted by:

*INSTITUTO DE ADMINISTRACIÓN Y POLÍTICA
DE SALUD DE PUERTO RICO*



BOARD OF DIRECTORS

President

Enrique Baquero, M.H.S.A.

Vice President

Alberto Varela, M.D.

Secretary- Treasurer

Eduardo Sotomayor, M.H.S.A.

Directors

Salvador Tió, Esq.

Jesús Rodríguez, M.H.S.A.

Mrs. Eugenia Josefina Santiago

Mr. José Mulero

Mr. Cruz Irizarry

Mr. Guillermo Brown, MHSA

José Varela, Esq.

Magaly Maldonado, M.D.

BOARD OF ADVISERS

Members

Margarita Alegría, Ph.D
Carmen Allende de Rivera, Ph.D
William Martínez
José Julián Álvarez
Felipe Benedit
Pedro Borrás, M.D.
Víctor A. Carrán
José Cuevas
Gabriel Dolagaray
Francisco J. Echegaray, M.D.
Miguel Echenique, Ph.D
Luis Izquierdo Mora, M.D.
Jorge Lastra, M.D.
José Madera, M.S.
Celia Molano, MHSA
Rita Osorio, Ph.D.
Saturnino Peña Flores, MHSA
Rafael Ramírez, M.D.
Andrés Rodríguez, CPA
Ruby Rodríguez, MHSA
Luis Salgado
José Serrano Gadea, MHSA
Luis Serrano Vega, MHSA
Erik Suárez, Ph.D.
Miguel Vázquez Deynes

PROJECT STAFF

Principal Investigator

Carlos Muñoz Bravo, Ph. D.

Project Director

William Rodríguez González, M.S.

Data Analyst

María E. Velázquez, M.P.H.

Assistant Investigator

Iris Anette Figueroa Rivera

Secretary

María A. Henríquez Montes

Consultant to Project

Allen Dobson, Ph.D.

TABLE OF CONTENTS

	Page
I. Introduction	1
II. The Economy of Puerto Rico	
1. The Relationship of Economy Growth to Unemployment in Puerto Rico	4
2. Employment by Industrial Sectors in Puerto Rico	6
2.A Employment Income and Health Insurance	8
Conclusions	11
III. Demographic Trends in Puerto Rico	
1. Population Growth in Puerto Rico	11
2. The Age Structure of Puerto Ricans	13
3. Fertility and Mortality	16
Conclusions	19
IV. Mortality in Puerto Rico	
1. General Mortality Trend and Socioeconomic Status	20
2. Infant Mortality	23
3. Leading Causes of Deaths in Puerto Rico	27
3.1 Heart Disease	28
3.2 Cancer	29
3.3 Diabetes Mellitus	30
3.4 Cerebral-Vascular Diseases	31
3.5 Deaths by External Causes	32
Conclusions	33
V. AIDS in Puerto Rico	34
Conclusions	40
VI. Diagnostic Related Groups Among the Medicare Population	40
Conclusions	43
Final Observations	43

TABLES INDEX

	Page
Table 2.1.1 Trends in Growth Rates of the Puerto Rican Economy (1954 Constant Prices)	5
Table 2.2.1 Employment by Industrial Sector (1950-1990)	6
Table 2.2.2 Health Plans Insured Group Puerto Rico 1992	8
Table 2.2.3 Median Income Per Capita Puerto Rico 1990 (Constant Prices)	9
Table 2.2.4 Nutritional Assistance by Health Regions Puerto Rico (1991-1992)	10
Table 3.1.1 Population Growth in Puerto Rico and the United States (1950-1990)	12
Table 3.2.1 Median Age of the Population Puerto Rico and United States (1960-1990)	13
Table 3.3.1 Fertility Rates in Puerto Rico and United States (1960-1990)	17
Table 3.3.2 Fertility Rates by Teenagers Aged 15-19 Puerto Rico and United States (1960-1990)	17
Table 4.2.1 Infant Mortality Rate Puerto Rico and United States (1955-1990)	24
Table 4.3.1 Rate of Deaths by External Causes Puerto Rico and the United States (1955-1990)	32
Table 5.1.1 Rate of HIV Related Deaths Puerto Rico and the United States (1983-1991)	34
Table 6.1.1 The 10 Most Frequent DRG's in Puerto Rico (1992)	41
Table 6.1.2 Relative Case Mix Index of Hospitals According to Bed Size Ownership	42

GRAPHS INDEX

	Page
Graph 2.1.1 Percent Distribution of Family by Income Level Puerto Rico vs. United States (1990)	10
Graph 3.2.1 Population Distribution by Age and Sex Puerto Rico (1960)	14
Graph 3.2.2 Population Distribution by Age and Sex Puerto Rico (1970)	14
Graph 3.2.3 Population Distribution by Age and Sex Puerto Rico (1980)	15
Graph 3.2.4 Population Distribution by Age and Sex Puerto Rico (1990)	15
Graph 3.3.1 Mortality Rates by Sex Puerto Rico vs. United States (1962-1990)	18
Graph 3.3.2 Mortality Rates by Age Groups Puerto Rico vs. United States (1990)	19
Graph 4.1.1 Mortality Rate vs. Income Per Capita Puerto Rico (1950-1990)	21
Graph 4.2.1 Infant Mortality Rate Puerto Rico vs. United States (1965-1990)	24
Graph 4.2.2 Neonatal Mortality Rates Puerto Rico vs. United States (1972-1989)	25
Graph 4.2.3 Postneonatal Mortality Rates Puerto Rico vs. United States (1975-1989)	26
Graph 4.2.4 Neonatal and Postneonatal Mortality by Health Sector Puerto Rico (1990)	27
Graph 4.3.1 Mortality Rate by Heart Disease Puerto Rico vs. United States (1975-1991)	28
Graph 4.3.2 Percentage Change in the Rate of Death by Heart Disease by Age Groups (1977-1990)	29
Graph 4.3.3 Mortality Rate by Cancer Disease Puerto Rico vs. United States (1975-1991)	29

	Page
Graph 4.3.4 Mortality Rate by Diabetes Mellitus Puerto Rico vs. United States (1975-1991)	30
Graph 4.3.5 Mortality Rate by Cerebral-Vascular Disease Puerto Rico vs. United States (1975-1991)	31
Graph 4.3.6 Percentage Change in the Rate of Death by Cerebral-Vascular Diseases by Age Groups (1977-1990)	32
Graph 5.1 Acquired Immunodeficiency Syndrome Confirmed Cases by Health Regions Puerto Rico	35
Graph 5.2 Acquired Immunodeficiency Syndrome Confirmed Cases by Age Puerto Rico	36
Graph 5.3 Acquired Immunodeficiency Syndrome Confirmed Cases by Age United States	36
Graph 5.4 Acquired Immunodeficiency Syndrome Total Confirmed Cases in Adult/Adolescent by Patients Groups Puerto Rico	37
Graph 5.5 Acquired Immunodeficiency Syndrome Total Confirmed Cases in Adult/Adolescent by Patients Groups United States	37
Graph 5.6 Acquired Immunodeficiency Syndrome Confirmed Cases in Adult/Adolescent Females by Patient Groups Puerto Rico	38
Graph 5.7 Acquired Immunodeficiency Syndrome Confirmed Cases in Adult/Adolescent Females by Patient Group United States	39
Graph 5.8 Acquired Immunodeficiency Syndrome Total Confirmed Cases in Pediatric by Patient Groups Puerto Rico	39
Graph 5.9 Acquired Immunodeficiency Syndrome Total Confirmed Cases in Pediatric by Patient Groups United States	40

**COORDINATING HEALTH CARE REFORM
WITH THE US TERRITORIES:
THE CASE OF PUERTO RICO**

PROGRESS REPORT 1

GRANT NUMBER: 18-C-90240/2-01

Final Revision
November, 1993

Submitted by:

*INSTITUTO DE ADMINISTRACIÓN Y POLÍTICA
DE SALUD DE PUERTO RICO, Inc.*



PROJECT:

**COORDINATING HEALTH CARE REFORM
WITH THE US TERRITORIES:
THE CASE OF PUERTO RICO**

GRANT NUMBER: 18-C-90240/2-01

PROGRESS REPORT 1

I. INTRODUCTION

Puerto Rico is unique in its relationship with Federal Medicare and Medicaid programs, not only as the largest United States self governing territory, but also due to the Hispanic cultural orientation of its health care delivery system. Puerto Rico's health system is noteworthy in that it has the third largest Medicaid eligible population of all States and territories¹, a limited federal financial participation in Medicaid and a Medicare population of which only 70.0 percent maintain Supplementary Medical Insurance (Part B) coverage. Although the health system in Puerto Rico faces cost growth problems similar to the United States health care system, there are structural differences in the organization of the health care delivery system such that reforms adopted by the United States federal government may have unique and unintended effects on the financing and delivery of health care services in Puerto Rico.

This Project was undertaken with the goal of providing health policy makers in the United States and Puerto Rico with a detailed framework of the Puerto Rico health care delivery system which will result in a coordinated effort in the implementation of health care reform.

1 Health Care Financing, Program Statistics, Medicare and Medicaid Data Book, 1990. US Department of Health and Human Services, Health Care Financing Administration, Office of Research and Demonstrations.

This project analyzes the structure of the health delivery system in Puerto Rico assessing its principal problems and how these can be address in comparison to reforms planned by selected states and the federal government.

Over the last six years there has been some interest in Congress on the impact of extending various federal programs as well as taxes to Puerto Rico, the Virgin Islands, Guam and American Samoa. The United States treats these insular areas differently than states in providing federal aid and taxing income. In 1987, the United States General Accounting Office (GAO) reported to Congress on the potential effects of fully extending Supplemental Security Income (SSI), Aid to Families with Dependent Children (AFDC), Medicaid, Foster Care, Child Support Enforcement, Foods Stamps, and federal income taxes to these areas.² During 1989, the issue of extending these programs to Puerto Rico took center stage when a proposal for a referendum on the status of Puerto Rico was debated by the Senate Committee on Energy and Natural Resources.³

However, despite the failure to reach agreement on these broad issues, changes and reforms to federal programs undertaken in the United States have been applied to Puerto Rico with mixed success. Changes implemented in health care, specifically the Medicare payment reforms have been particularly important to Puerto Rico. In 1987 Puerto Rico hospitals entered the Prospective Payment System (PPS) after a lobbying effort by the Puerto Rico Hospital Association. When Congress approved PPS for Puerto Rico a "local payment" formula was established. This formula provided a standardized amount which was weighted with 75.0 percent of the Puerto Rico hospitals historic average costs per discharge and 25.0 percent average costs per discharge at the national level. Over the years the Puerto Rico Hospital Association has challenged aspects of the PPS payment formula noting that it does not reflect the cost structure of Puerto Rico hospitals. One example cited is the difference between United States and Puerto Rico hospitals in labor and non-labor expenditures shares. Another argument presented is that although the formula recognizes a lower cost structure in Puerto Rico, it has maintained its level of the hospital deductible for Part A beneficiaries, a factor that may impinge negatively on their access to hospital care.⁴

2 United States General Accounting Office, Report to the Acting Chairman Subcommittee on Public Assistance and Unemployment Compensation, Committee on Ways and Means, House of Representatives, Welfare and Taxes Extending Benefits and Taxes to Puerto Rico, Virgin Islands, Guam and American Samoa.

3 S. 712 was reported by the Senate Committee on Energy and Natural Resources on September 6, 1989. S. 712 was jointly referred to the Senate Committees on Finance and on Agriculture, Nutrition, and Forestry. The bill did not get a support from a majority of members in the Committee and was never discussed by the full Senate.

4 The present level of hospital deductible for Part A beneficiaries represents approximately an average of two days of inpatient care.

The implementation of the Medicare physician payment reform in Puerto Rico is another example of applying United States formulas with potential unintended effects. The application of the Geographic Adjustment Factor (GAF) formula to Puerto Rico has resulted in a GAF which is the lowest of all payment areas. The outcome of this legislation is that physicians in Puerto Rico will be paid approximately \$26 million less once the payment reform is fully implemented.⁵ This represents a reduction of almost 15.0 percent in physician payments.

Given the commitment of the Clinton Administration to health care reform it is necessary to establish the effectiveness and incentives of these efforts in Puerto Rico. In this Progress Report we present the first set of findings of this study. All the efforts of this first stage of the project have been geared to achieve the following objective:

**To gather and analyze data on the health status
of the population of Puerto Rico.**

This first annual report provides a detailed description of the health status of the population in Puerto Rico and identifies the most pressing health care problems as reflected in mortality and morbidity data. The following specific tasks were performed:

- a. Gather data on infant mortality rates (neonatal and post-neonatal).
- b. Compare Puerto Rico infant mortality rates to the mainland United States.
- c. Gather data on mortality rates.
- d. Compare Puerto Rico mortality rates with mainland United States.
- e. Establish the main causes of Puerto Rico deaths and compare them with mainland United States.
- f. Analyze the Puerto Rico trends on AIDS related mortality and compare them with mainland United States.
- g. Establish the most frequent DRG distribution of cases for the Puerto Rico Medicare population.

The health status of the Puerto Rican population and its morbidity and mortality trends are not independent of the specific circumstances on which Puerto Rico has developed. During

5 Coopers and Lybrand Report to the Medicare Part B Intermediary, Blue Shield of Puerto Rico, 1993.

the last forty years the structure of the Puerto Rico economy, as well as, its population have undergone significant changes which bear a significant relationship to changes in morbidity and mortality trends. In this report we recognize the interdependence of these factors with the health status of the Puerto Rico population.

In the following section we provide a description of the economic development of Puerto Rico, and associated changes in the employment and income structure. In the second section, we report on the demographic trends in Puerto Rico. Whenever possible we provide United States comparative data.

II. THE ECONOMY OF PUERTO RICO

1. The Relationship of Economic Growth to Unemployment in Puerto Rico

Puerto Rico has experienced rapid economic growth since World War II. The quickened pace of growth that resulted from the industrialization policy known as Operation Bootstrap is clearly evidenced by the average rate of growth from 1950 to 1970. During these 20 years the gross national product and the gross domestic product grew at an average annual rate of 6.6 percent and the strategy of economic growth changed from one concentrating on sugar to the creation of a diversified industrial economy. An industrialization strategy based on tax incentives, along with the creation of the Puerto Rican Industrial Development Corporation, spearheaded these efforts.⁶

However, as is evidenced in Table 2.1.1, during the last twenty years, 1972 to 1992, the Puerto Rico economy has not been able to sustain the growth rates of the previous two decades. Although the industrial policy of Puerto Rico has remained unchanged during the last forty years, its implementation shifted from emphasis on less competitive labor intensive, low wage industries toward industries capable of paying higher wages with capital intensive production techniques. This shift is in part explained by minimum wage increases which exacerbated the loss in competitiveness of labor intensive industries. The increase in the capital-labor ratio of emerging industries expanded reliance on external capital. This depen-

6 The Industrial Incentive Act of 1948 constituted the principal instrument used by the government to attract United States firms to the Island. The act, offered time exemption from Puerto Rican profit taxes, which together with section 931 of the Federal Income Tax Code, essentially permitted industry tax free operations on the Island. The section 931 evolved into section 936 of the 1976 tax reform law with encouraged section 931 corporations to place funds in Puerto Rican assets allowing them to repatriate dividends free of US taxes on a current basis.

dence on external investment has resulted in a situation where large increases in output by capital intensive industries does not necessarily result in increases in income for the Puerto Rican population. This is evidenced by the widening disparity between the Gross National Product and the Gross Domestic Product. The Gross National Product measures from the "demand side" all that it is available to Puerto Ricans for consumption. Meanwhile, the Gross Domestic Product measures the value of production within the boundaries of Puerto Rico. An excess of GDP over GNP measures the outflow of factor income from the economy. According to Table 2.1.1 this trend is widening and in the last decade the net outflow of income has exceeded, on average, 30.0 percent of the GNP. In 1992, according, to the Puerto Rico Planning Board, GNP was \$23,620 million (at current prices) while Gross Domestic Product amounted to \$33,969 million or 44.0 percent more. Meanwhile, in the United States in 1989 Gross National Product was \$5,201 billion and Gross Domestic Product \$5,244 billion or 1.0 percent more.

Table 2.1.1
Trends in Growth Rates of the Puerto Rican Economy
1954 Constant Prices

Period	GNP	GDP	GNP Growth	GDP Growth	Ratio of GDP to GNP
1953	1,081.3	966.6			
1962	1,683.9	1,686.6			
1953-62			5.57%	7.45%	1.34
1963	1,820.7	1,862.0			
1972	3,236.1	3,503.0			
1963-72			7.77%	8.81%	1.13
1973	3,400.3	3,711.8			
1982	3,941.8	4,568.6			
1973-82			1.59%	2.31%	1.45
1983	3,840.1	4,590.0			
1992	5,028.1	6,984.2			
1983-92			3.09%	5.22%	1.69

Source: Puerto Rico Planning Board

This trend has a significant impact in the Puerto Rico economy. The excess of GDP over GNP represents the flow of income going from the Island to the mainland consisting mostly of profits. This flow provides an indicator of the extent to which Puerto Rico's capital is exter-

nally owned and controlled. Second, this gap also reflects the lack of alternatives to promote the investment of this “lost” income into other productive activities within the Island confines. This low rate of returned investment to the economy of Puerto Rico is a main contributor to the Island persistent high unemployment rates. In the next section we provide a discussion of the employment structure of the Puerto Rican economy.

2. Employment by Industrial Sector in Puerto Rico

High unemployment has become an increasing problem in Puerto Rico. The Operation Bootstrap industrialization strategy along with massive migration to the east coast of the United States were responsible of reducing the unemployment rate from approximately 16.0 percent in 1950 to 10.0 percent in 1970. However, with the oil shocks and the stagnation of the United States economy in the early and late 70s, unemployment swelled to 20.0 percent. The United States recession of the early 80s affected the Island and increased the unemployment rate to almost 24.0 percent in 1983. Since then, the unemployment rate has decreased to 14.0 percent in 1990 and by 1993 it has oscillated around the 17.0 percent rate.⁷

Table 2.2.1
Employment by Industrial Sector
(1950-1990)

Sector	1950	1960	1970	1980	1990
Agriculture	210,000	131,000	66,000	41,000	35,000
Construction	26,000	50,000	78,000	45,000	56,000
Manufacture	111,000	91,000	132,000	141,000	158,000
Commerce	92,000	98,000	130,000	141,000	190,000
Transportation	30,000	40,000	47,000	48,000	61,000
Services	81,000	78,000	117,000	136,000	213,000
Government	47,000	64,000	107,000	177,000	218,000
Other	5,000	8,000	16,000	23,000	33,000
Total	601,000	558,000	693,000	760,000	971,000

Source: Puerto Rico Department of Labor, Employment and Unemployment Time Series.

⁷ Bureau of Labor Statistics, Puerto Rico Department of Labor and Human Services.

The changes undergone by the economy of Puerto Rico, as expected, are reflected in changes in the structure of employment. During the 1950s, agriculture was the main economic activity on the Island. This sector represented approximately 35.0 percent of total employment and 17.5 percent of the Gross Domestic Product. The impact of the industrialization strategy on the structure of employment is depicted in Table 2.2.1. In the onset of this strategy agriculture employment decreased by more than 30.0 percent. However, the industrial sector could not absorb all the labor release from agriculture and migration to New York and other eastern states accelerated.

In 1960, the agriculture sector generated approximately 23.5 percent of all the employment in Puerto Rico. The reduction in the employment in agriculture continued steadily and in 1990 this sector accounted for 4.0 percent of total employment.

Manufacture which has been the main target in the development strategy has grown from 111,000 in 1950 to 165,000 in 1990, an increase of 42.0 percent during this forty year period. In examining this growth rate of the last forty years it is important to realize that jobs in this sector have not increased dramatically since 1970. The average annual rate of growth of jobs has been about 1.0 percent. Growth of capital intensive industry has been encouraged by United States and Puerto Rican tax exemptions on corporate profits earned in Puerto Rico. Since the rate of return to capital was increased by such exemptions, capital intensive industries were attracted to the Island as the relative cost of capital to labor decreased.

The increase in the Commerce and Service sectors is reflection of a significant growth in consumption activities. The importance of these two sectors as generators of employment has grown dramatically. The commerce (trade) sector represented in 1950 15.0 percent of total employment, while the service sector created 13.0 percent of the total employment for the same year, by 1990 the relative importance of the commerce and service sectors expanded to 20.0 percent and 22.0 percent, respectively, of total employment. Only the trade sector has a similar share of total employment as the United States economy with 21.0 percent. The Service sector represents almost 40.0 percent of total employment in the United States.⁸ The gap in this sector between Puerto Rico and the United States responds basically to the latter having a larger share of the population employed in high income occupations, which are the main consumers of services.

Government employment has experienced the largest increase of all the principal sectors of the Puerto Rican economy. Employment expanded in this sector by 363.0 percent during the

8 US Bureau of Labor Statistics, Employment and Earnings, 1990.

last forty years. The growth of the government sector as a job producer is worrisome, especially since the sources of support; the federal government and local tax revenues, face binding constraints. The growth in Puerto Rico government employment has been increasing at a much faster rate than that of the United States. In 1970 it represented 15.0 percent of total employment compared to the United States where public administration jobs during the same years represented 6.0 percent of total United States employment. In 1990 public administration jobs expanded to 23.0 percent of total employment whereas, public administration jobs in the United States has remained almost constant at 5.0 percent.

2.A Employment, Income and Health Insurance

Given that most of the proposed health reform initiatives promote an employment based insurance system, it is important to describe in this section how the present employment structure relates to health insurance. Table 2.2.2 depicts the number of employers according to firm's size. According to the Puerto Rico Labor Department 77.0 percent of the firms employ nine or less workers and 96.0 percent of the firms in Puerto Rico employ less than 100 persons.

Table 2.2.2
Health Plans Insured Group
Puerto Rico, 1993

Number of Employees	Number of Employers*	Insured Groups	Percent Insured
< 9	34,436	565	2%
10 - 49	7,230	2,546	35%
50 - 99	1,162	752	65%
100 - 249	893	354	40%
250 - 999	597	407	68%
> 1,000	79	74	94%
Total	44,397	4,698	11%

* Registered employers that paid unemployment charges in January, February and March of 1993.

To approximate how many of these firms have health insurance, we contacted all health insurance companies operating in Puerto Rico and asked to provide information on how

many groups were insured according to group size. According to the information collected approximately 11.0 percent of all firms have some sort of group health insurance but this statistic is driven by the large number and proportion of small firms that do not provide insurance. As expected, groups with less than 50 employees had the least exposure to health insurance.

It is important to recognize that, given the size of the firms in Puerto Rico, group health insurance is basically a small group insurance market by United States standards. Also, in the present insurance market there is group health insurance for groups starting with 5 or more employees. This explains in part the low health insurance exposure among groups with nine or less employees and suggests that health care reform would require large employer subsidies if an employer mandate were enacted, otherwise large employment effect would be anticipated.

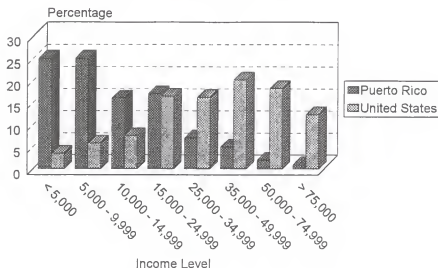
Table 2.2.3
Median Income Per Capita
(Constant Prices)
Puerto Rico, 1990

State	Median Income Per Capita
California	\$33,290
Florida	\$26,685
Illinois	\$32,542
Mississippi	\$20,178
New York	\$31,591
Puerto Rico	\$8,895

Data Source: Statistical Abstract 1992, Department
of Commerce.

Another factor that impinges directly on health insurance status among individuals is the low income levels that prevails among Puerto Rican families. For example, according to Table 2.2.3, median household income in Puerto Rico is less than half of median income in Mississippi which is the state with the lowest income per household. A comparison of the income distribution between United States and Puerto Rico for 1990 is presented in the following graph 2.1.1. Over 80.0 percent of the families in Puerto Rico reported an annual income of \$25,000 or less compared to approximately 30.0 percent in the United States.

Graph 2.1.1
Percent Distribution of Family by Income Level
 Puerto Rico vs. United States
 1990



Data Source: US Bureau of Census, Current Population Reports (1990).

This low level of income necessitates a greater dependence in cash assistance programs. Table 2.2.4 presents the number of recipients by Health Region of the Nutritional Assistance Program. This program funded with federal funds, is the Puerto Rico version of the Food Stamps Program. Recipients receive cash instead of stamps. Approximately 1.5 million persons participate in this program, which represents almost 43.0 percent of the total population.

Table 2.2.4
Nutritional Assistance by Health Regions
 Puerto Rico, 1991-92

Health Region	Families*	Persons*	Cash*	Cash/ Families	Total Cash	Total Cash/ Families
Arecibo	67,835	200,259	10,986,129	161.9	131,833,548	1943.4
Bayamón	74,022	226,601	12,300,504	166.2	147,606,048	1994.1
Caguas	74,932	217,500	11,750,205	156.8	141,002,460	1881.7
Mayagüez	40,4381	113,338	6,161,507	152.4	73,938,084	1828.4
Aguadilla	32,627	96,506	5,221,311	160.0	62,655,732	1920.4
Ponce	91,331	288,582	15,618,962	171.0	187,427,544	2052.2
Metro	94,052	274,980	15,252,233	161.8	182,702,793	1942.6
Fajardo	18,058	52,397	2,850,308	157.8	34,203,696	1894.1
Total Puerto Rico	493,295	1,470,163	80,114,159	162.4	961,369,905	1948.9

* Monthly average

Data Source: Department of Social Services, Planning and Development Division. Office of Statistics.



Conclusions

Various conclusions can be extracted from this description of the Puerto Rican economy. These are:

1. The strategy for economic growth has to be reevaluated to achieve the rates of growth of the 50s and 60s. The widening gap between the GDP and GNP represents a net outflow of resources which could be used to create additional income in the Island.
2. The present factor proportions, which exhibit a high capital labor ratio in the manufacturing sector represent a structural barrier to achieving significant reductions in the unemployment rate. The manufacturing sector in the last decade has shown that it cannot lead the effort of job creation in the Island.
3. The government sector instead of following other sectors in the job creation efforts has assumed a principal role in this endeavor. However, given the present conditions of fiscal restraint at the federal and local level, this role cannot continue if unemployment levels are to be reduced significantly.
4. Given the high level of unemployment in Puerto Rico coupled with low levels of income, it is important to establish the feasibility and effectiveness of an employer based health insurance system.

III. DEMOGRAPHIC TRENDS IN PUERTO RICO

In this section we present a demographic portrait of Puerto Ricans living on the Island. This description provides a framework wherein the health status analysis can be presented more effectively. Whenever possible, Puerto Rico statistics are compared to comparable United States information.

1. Population Growth in Puerto Rico

Puerto Rico can be regarded by any standards as a highly populated area. It has a population density of approximately 1,030 persons per square mile. This figure compares favorably with those of the Asian nations and is among the highest in the Western Hemisphere.



Table 3.1.1 provides a comparison of the population growth rates between Puerto Rico and the United States for the census years of 1950, 1960, 1970 and 1990.

Table 3.1.1
Population Growth in Puerto Rico and the United States
(1950-1990)

Year	Population in Puerto Rico	Average annual rate of growth	Population the United States	Average annual rate of growth
1950	2,210,703	1.1%	151,325,798	1.1%
1960	2,349,544	0.6%	179,323,175	1.6%
1970	2,712,033	1.4%	203,302,031	1.2%
1980	3,196,520	1.7%	226,545,805	1.2%
1990	3,522,037	1.0%	248,709,873	1.0%

Source: US Census, 1950, 1960, 1970, 1980, 1990.

As can be observed from Table 3.1.1, Puerto Rico, from 1960 to 1980, experienced a higher rate of population growth than the United States. The population of Puerto Rico has grown on average 22.0 percent faster than the United States population. However, the last census showed that the Puerto Rico growth rate has decreased significantly from that of previous periods and has followed a pattern similar to that of the United States.

The implementation of the industrial strategy also brought a population movement from the rural areas to urban areas. In 1940, 30.3 percent of the population lived in urban areas. In 1990, the population in urban areas represented 71.1 percent of total population.⁹ This trend to urban areas can also be explained by the expansion in employment in the Trade, Services and Public Administration sectors during the last forty years.

Migration of Puerto Rico residents to the United States has also been a significant population trend which cannot be ignored. Migration out of Puerto Rico was first influenced by the government during the beginnings of the industrialization efforts. Since job creation in industry could not keep pace with the increasing rate of unemployment in agriculture, workers migration was encouraged as a safety valve. According to the Puerto Rico Planning Board from 1940 to 1950, 151,000 persons migrated to the United States. This number tripled

9 Puerto Rico Planning Board

during 1950 to 1960 and reached 470,000. Migration to the United States continued during the next decade amounting to 214,000. In the 70s this migration pattern started reversing and net migration decreased to 45,000. Migration trends in the 1980s increased significantly to approximately 110,000. It has been documented by local newspaper articles that there are also differences in the type of migrants between the 1950s and 1960s and the 1980s and 1990s. While early Puerto Rican migrants were engaged in agriculture and tended to have little education, modern migrants are young and highly educated people. The current movement to the states by this sector of the Puerto Rican population could represent a potential problem for the economy. It is argued by local analysts that this migration movement of human capital could impinge negatively on future productivity growth in the Island.

2. The Age Structure of Puerto Ricans

The age structure is basically determined by the birth and death rates and migration patterns. The median age of the Puerto Rican population was almost constant at 18 years for a whole century, from 1860 to 1960. However, the median age in Puerto Rico from 1960 to 1990, grew by ten years. This brisk rate of growth is linked to significant reductions in the birth rate of Puerto Ricans (which we will discuss later in this section). Although Puerto Rico has a lower median age than the United States, the gap is closing fast. The median age in the United States grew by three years from 1960 to 1990.

Table 3.2.1
Median Age of the Population Puerto Rico and United States
(1960-1990)

Year	Median Age in Puerto Rico	Median in the United States
1960	18.5	29.5
1970	21.5	28.0
1980	25.5	30.0
1990	28.5	32.8

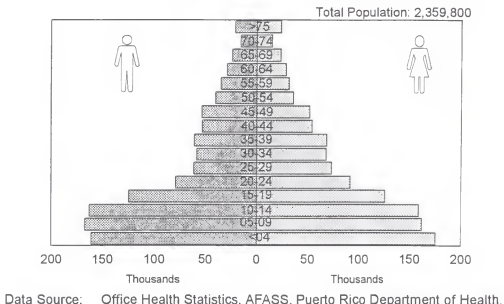
Source: Puerto Rico Planning Board, Statistical Abstract.

The age distribution of the Puerto Rican population is presented in graphs 3.2.1, 3.2.2, 3.2.3 and 3.2.4. In 1960, 44.0 percent of the total population was under 15 years old. In the same year the over 65 years old group represented 5.0 percent of the total population during this

10 José Vázquez Calzada, La Población de Puerto Rico y su Trayectoria Histórica, page 47.

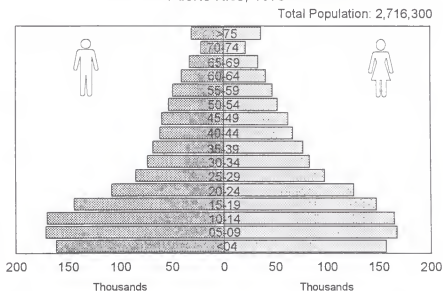
time period. The United States had 31.0 percent of its population under 15 years old and 9.0 percent belonged to the over 65 or older group.

Graph 3.2.1
Population Distribution by Age and Sex
Puerto Rico, 1960



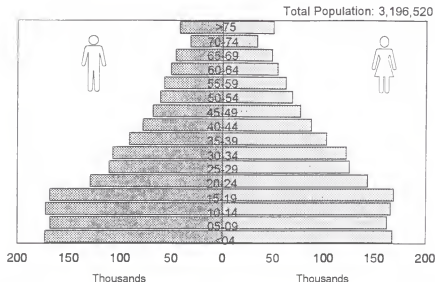
Data Source: Office Health Statistics, AFASS, Puerto Rico Department of Health.

Graph 3.2.2
Population Distribution by Age and Sex
Puerto Rico, 1970



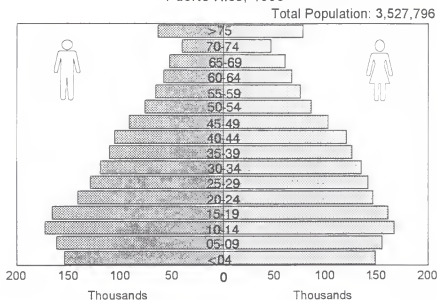
Data Source: Office Health Statistics, AFASS, Puerto Rico Department of Health.

Graph 3.2.3
Population Distribution by Age and Sex
 Puerto Rico, 1980



Data Source: Office Health Statistics, AFASS, Puerto Rico Department of Health.

Graph 3.2.4
Population Distribution by Age and Sex
 Puerto Rico, 1990



Data Source: Office Health Statistics, AFASS, Puerto Rico Department of Health.

Between 1960 and 1970 the under 15 years old population declined from 1,007,400 to 992,500 or a 1.5 percent decrease. Meanwhile, over this time period in the United States this age group experienced an absolute increase to 57,900,000 or a percentage increase of 4.0 per-

cent. However, in Puerto Rico, as well as in the United States this age group presented a decline as a proportion of total population to 36.0 and 28.0 percent, respectively. Puerto Ricans in the over 65 years old group presented an increase of 42.0 percent while in the United States the same age group grew by 21.0 percent. Also, the proportional representation of this age group increased in Puerto Rico to 6.5 percent and in the United States to 9.8 percent of total population.

Between 1980 and 1990 this trend in the age structure of the Puerto Rican population has continued. In 1990 the proportion of the population under 15 years old had decreased to 27.0 percent whereas, the over 65 group has increased to represent 9.7 percent of the total population. This trend is similar to the United States in which the under 15 years old group represents 22.0 percent of total population and the over 65 years old constitutes 12.5 percent of total population.

Although the Puerto Rican population is still younger than the United States population this gap is closing at an accelerated rate. This trend can be explained by an absolute decrease in the population under 15 years old and the dramatic increase in the 65 years old group. While the over 65 years old group in the United States, grew 88.0 percent from 1960 to 1990, the increase in Puerto Rico was 175.0 percent.

3. Fertility and Mortality

Fertility

A comparison in fertility rates between Puerto Rico and the United States is presented in Table 3.3.1. Since 1960 fertility rates have been decreasing in Puerto Rico as well as in the United States. This trend in the fertility rates also helps to explain the increase in the median age of the Puerto Rican population. As fertility rates decline the population will grow older.

Table 3.3.1 shows that fertility rates in Puerto Rico are significantly higher than in the United States. However, the decline experienced is very similar. The fertility rate decreased since 1960 by 42.0 percent in Puerto Rico, as well as in the United States. According to Vázquez-Calzada, total fertility rates (TFR)¹¹ have been also decreasing since 1960.¹² In 1960, the

11 Total fertility rate (TFR) represents the total number of children that a woman will have over her reproductive years. A total fertility rate of 2.0 implies a stationary population, since the two children will replace their parents. A TFR greater than 2.0 implies a growing population.

12 José Vázquez Calzada, La Población de Puerto Rico y su Trayectoria Histórica, page 124.

Puerto Rico TFR was 4.77 while in 1985 it decreased to 2.42. In the United States, the 1984 TFR for blacks was 2.15 and 1.72 for whites, (not shown).

Table 3.3.1
Fertility Rates in Puerto Rico and United States
(1960-1990)

Year	Puerto Rico	United States
1960	137.5	118.0
1970	112.9	87.9
1980	97.4	68.4
1990	80.0	69.2 *

Fertility Rates reflect the number of births per 1,000 population

* 1989 estimate.

Source: Office Health Statistics, AFASS, The United States Statistical Abstract.

The fertility rate among teenagers in Puerto Rico (Table 3.3.2), is somewhat distressing. In 1970 the birth rate among teenagers experienced encouraging improvements. However this rate has been stagnant during the last 20 years. The gap between Puerto Rico and the United States has widened over this period. Births to teenagers in Puerto Rico continue to be a very important topic, specifically because of the effects of these births on infant mortality rates and low birth weight incidence.

Table 3.3.2
Fertility Rates by Teenagers Aged 15-19
Puerto Rico and United States
(1960-1990)

Year	Puerto Rico	United States
1960	97.57	90.19
1970	73.35	69.52
1980	78.02	53.94
1990	77.40	59.89 *

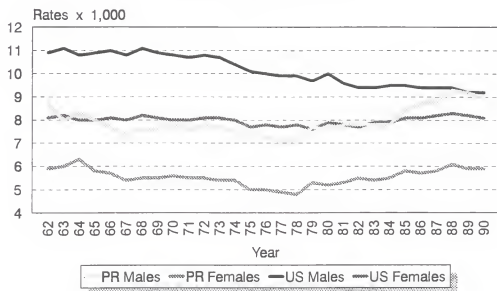
* 1989 estimate.

Source: Office Health Statistics, AFASS, US Statistical Abstract.

Mortality

According to the graph 3.3.1, mortality rates in Puerto Rico have been lower than in the United States. The mortality rate has been decreasing constantly since 1960 until 1984 when it reached 6.6 per 1,000 population. Since 1984 this rate began to increase and in 1990 it attained a level of 7.4 per 1,000. The main causes for this increase is discussed in a later section in this report.

Graph 3.3.1
Mortality Rates by Sex
Puerto Rico vs. United States
1962-1990



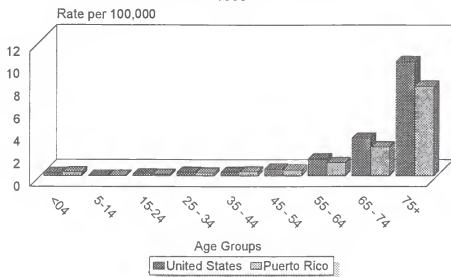
Data Source: Office Health Statistics, AFASS, Statistical Abstract of the United States, US Department of Commerce.

When we account for sex differences in mortality, the rate among women has shown the most significant progress. In 1950, women reported a mortality rate of 9.3 per 1,000 whereas, for men the mortality rate was 10.4 per 1,000. The mortality rate for women fell to 5.9 in 1990 compared to 9.0 for men.

Comparing these rates to those of the United States, we can observe that the lower mortality rate in Puerto Rico is explained by the large difference between women in the United States and Puerto Rico. In 1990 the mortality rate among women in the United States was 8.1 or approximately 37.0 percent higher than for women in Puerto Rico. Mortality rates among men were very similar between United States and Puerto Rico, 9.2 and 9.0, respectively.

After adjusting the mortality rate by age group, Puerto Rico still exhibits a lower mortality rate than the United States (see graph 3.3.2). In the age group of 4 years old or less, Puerto Rico has a higher mortality rate than the United States. This is likely accounted for by the higher rate of infant mortality in Puerto Rico. It is also important to note the differences between Puerto Rico and the United States in the mortality rate for groups 65 to 74 years old and 75 and older. The United States has, among these age groups, a mortality rate approximately 22 percent higher.

Graph 3.3.2
Mortality Rates by Age Groups
Puerto Rico vs. United States
1990



Data Source: Department of Health (AFASS), Vital Statistics Office 1990.

Conclusions

1. The Puerto Rican population grew at a faster pace than the United States, until 1990. In the 1990 US Census the percentage increase from 1980 was very similar in Puerto Rico and the United States.
2. Migration to the United States has continued over the years but at a much lower level than during 1950 and 1960.
3. The Puerto Rican population is younger than the United States although, the gap is closing, because the population group over 65 years old is growing faster in Puerto Rico than in the United States.

4. Fertility rates are higher in Puerto Rico. A troubling fact is the rate of births among teenagers in Puerto Rico. This rate has been stagnant over the last 20 years and is significantly higher than the rate experienced by teenagers in the United States.
5. The overall mortality rate is lower in Puerto Rico than in the United States. This rate decreased constantly until 1984 when it reached its lowest point at 6.6 per 1,000 population. Since 1985 the mortality rate has increased to 7.4 per 1,000 population. The age adjusted mortality rate is also lower in Puerto Rico than in the United States.

IV. MORTALITY IN PUERTO RICO

1. General Mortality Trends and Socioeconomic Status

As stated in the introduction of this report, the analysis of the health status of Puerto Ricans has to be done in the context of its socioeconomic development. Over the years the literature has provided substantial evidence on the relationship between socioeconomic status and health.¹³ In this section we provide empirical evidence of this relationship in Puerto Rico.

The mortality rate in Puerto Rico has decreased dramatically since the beginning of the century. This rate has decreased from 28.1 per 1,000 population in 1950 to 7.4 in 1990.¹⁴ However, the rate of decrease of this trend has dampened if not turned around in the last 10 years.

In this section, income per capita is used to approximate changes in socioeconomic status. Income per capita, in constant 1954 dollars, has grown from \$328 in 1950 to \$1,491 in 1990. This represents an average annual rate of growth of 3.9 percent. However, growth in income per capita, as expected, follows the same trend as the GDP. Between 1950 and 1970 income per capita grew at an annual rate of 4.8 percent in real terms. This rate of growth ameliorated significantly from 1970 to 1990 to approximately 2.2 percent.

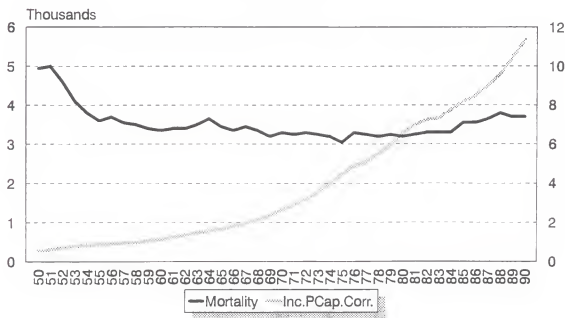
In the graph 4.1.1 the relationship between the mortality rate and the income per capita is represented. The graph shows a negative correlation during the first twenty years. This cor-

13 For a review of the literature see: Feinstein, Johnatan S., "The Relationship between Socioeconomic Status and Health: A review of the Literature", *The Milbank Quarterly*, Vol. 71, No. 2, 1993.

14 Rivera de Morales, Nidia, "Mortalidad en Puerto Rico", Graduate School of Public Health, University of Puerto Rico, June, 1970. Also, Puerto Rico Department of Health Vital Statistics.

relation abates from 1970 on showing a lessening impact from income per capita on the mortality rate.

Graph 4.1.1
Mortality Rate vs. Income Per Capita
 Puerto Rico
 1950-1990



Data Source: Puerto Rico Planning Board, Office Health Statistic, AFASS.

A statistical model was estimated to provide empirical evidence of the relationship between changes in the socioeconomic status and the mortality rate in Puerto Rico. The estimated model captures the relationship between income per capita and mortality and also the effect of the slower rate of growth of the last 20 years in the following way:

$$\text{Mortality} = \beta_1 Y + \beta_2 (Y * d) + e,$$

where

Y is the income per capita, and

d is a dummy variable which is equal to zero from 1950 to 1969 and equal to 1 from 1970 to 1990.

This specification enables us to compare the effect of per capita income on mortality across the whole period along with its effect during the last 20 years. For example, when the period considered is from 1950 to 1969 the model collapses to: $Mortality = \beta_1 Y + e$; when it takes into account the observation from 1970 to 1990 the model expands to:

$$Mortality = \beta_1 Y + \beta_2 (Y \cdot d) + e, \text{ or } Mortality = (\beta_1 + \beta_2) \cdot Y + e.$$

This means that β_1 represents the overall effect of income per capita on mortality and $(\beta_1 + \beta_2)$ represents the effect of income on mortality for the period of 1970 to 1990.

Regression Results

Variable	Coefficient	t-Statistic
Constant	9.0961	16.540
Income Per Capita	-0.0031	3.252 *
Dummy	0.0012	2.110 **

R-square: 0.401

* $p < .01$

** $p < .05$

These regression results depict the inverse relationship between income per capita and mortality. These results imply that as income per capita has increased in Puerto Rico during the last 40 years, mortality has decreased. The value of the coefficient indicates the marginal effect of income on mortality. That is, all other factors constant, for every one thousand dollars increase in income per capita a reduction of 3.1 in the mortality rate occurs. However, the effect of a reduction of the rate of increase of income per capita is also captured in this model through the dummy variable. This impact is given by: $(-0.0031 + .0012) = -.0019$. The plausible explanation for these results are:

- 1) as income increases, the incremental effect on mortality rates of additional income decreases
- or

- 2) it gets harder to keep people alive once a determined stage of economic and social development has been attained.

In order to assess the impact of income on mortality, an elasticity at the means was calculated. The elasticity of per capita income on the mortality rate is -0.382 for the whole period. The elasticity of per capita income on the mortality rate is -0.161 during the last 20 years. This means that in the last forty years a 10.0 percent increase in per capita income resulted in a 3.8 percent decrease in the mortality rate. When the last 20 years are examined the effect of per capita income on the mortality rate is diminished considerably. A 10.0 percent increase in per capita income has resulted on an average reduction of 1.6 percent in the mortality rate.

The influence of the growth in per capita income over the mortality rate during the 1950 to 1970 is expected of a transformed economy. As the economy of Puerto Rico moved from an agriculture system into a manufacture system the marginal effect of income is very strong. In this stage of economic development the nutritional level, housing conditions, communications and transportation improved significantly from its pauperis levels. However, once these improvements are achieved the link between the mortality rate and per capita income gets weaker. That could be because a modern society brings along additional risk factors not present in less developed ones, or because once initial gains are achieved additional increment are more difficult to achieve.

2. Infant Mortality

One of the indicators most often used to measure the progress on the health status of population is the infant mortality rate. This is so, because in addition to access to health care services, infant mortality also indicates the exposure to a number of risk factors that can be minimized through prevention and education. An example is low birth weight (LBW) which correlates highly with infant mortality and most of the time is the result of adolescent pregnancy, smoking and /or lack of pre-natal care.

According to Table 4.2.1, the Puerto Rico infant mortality rate has decreased dramatically over the last 35 years. Although this rate is still high by international standards, the trend is encouraging.



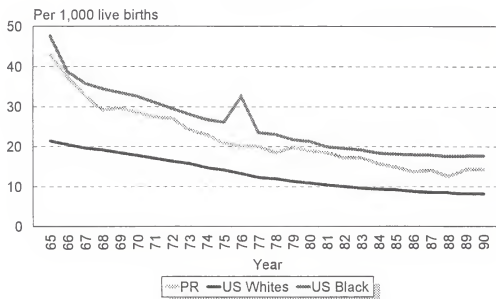
Table 4.2.1
Infant Mortality Rate Puerto Rico and United States
 (1955-1990)

Year	Puerto Rico	United States	US	US
			White	Blacks
1955	55.1	26.4		
1960	43.7	26.0		
1970	28.6	19.8	17.8	32.6
1980	19.0	12.6	11.4	21.4
1990	13.5	9.8	8.2	17.7

Source: Puerto Rico Department of Health, Vital Statistics and US Statistical Abstracts.

Puerto Rico continues to have an infant mortality rate higher than the United States, but the gap is closing. When the infant mortality rate in the United States for the year 1990 is desegregated between blacks and whites, the lower infant mortality is explained by the rate experienced by the white population (see graph 4.2.1).

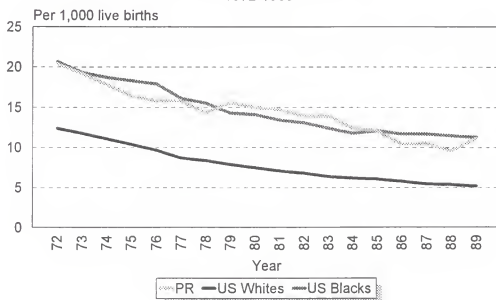
Graph 4.2.1
Infant Mortality Rates
 Puerto Rico vs United States
 1965 - 1990



Data Source: Office Health Statistics, AFASS, Statistical Abstract of the United States, US Department of Commerce.

In Puerto Rico in 1990 the leading causes of infant mortality were short gestation and low birth weight with a rate of 293 per 100,000, followed by congenital anomalies with a rate of 231 per 100,000 and respiratory deficiency syndrome represented the third leading cause of infant mortality with a rate of 220.1 per 100,000. Other important causes were pneumonia (58.9), infections during the pre-natal period (51.2) and accidents (17.1). The fact that the leading cause of infant mortality in Puerto Rico is attributed to low birth weight correlates with the high birth rates among teenagers presented in Table 3.3.2.

Graph 4.2.2
Neonatal Mortality Rates
 Puerto Rico vs. United States
 1972-1989

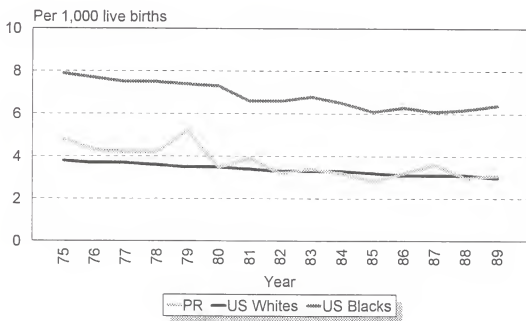


Data Source: Office Health Statistics, AFASS. Statistical Abstract of the United States, US Department of Commerce.

Infant mortality is divided between those deaths that occurred during the first month of birth and those that resulted after the first month but before the first year. These are identified as neonatal and post neonatal mortality. The graphs 4.2.2 and 4.2.3 present neonatal and post neonatal mortality rates in total for Puerto Rico and by whites and blacks for the United States. Neonatal mortality rates in Puerto Rico and the United States were in 1989 11.2 and 6.2, respectively. The neonatal mortality rate in Puerto Rico is very similar to the one exhibited in the black population of the United States. In 1989 black neonatal mortality rate in the United States was 11.3 per 1,000 births. Post neonatal mortality presents a different situation in Puerto Rico. In 1989, post neonatal mortality for whites and blacks in the United States

was 3.0 and 6.4, respectively. Puerto Rico reported for the same year a rate of 3.1. The difference between neonatal and post neonatal mortality rates in Puerto Rico is due to the difference in its correlates. While neonatal mortality is highly correlated with access, education and prevention in the population, post neonatal mortality is more related to the environmental factors in which the child develops, such as the conditions of the living quarters, availability of running water, etc. These later factors improve significantly with economic development.

Graph 4.2.3
Postneonatal Mortality Rates
 Puerto Rico vs. United States
 1975-1989

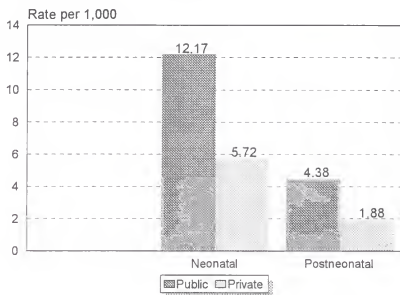


Data Source: Office Health Statistics, AFASS, Statistical Abstract of the United States, US Department of Commerce.

Given the dual nature of the health care delivery system in Puerto Rico, it is important to analyze infant mortality rate according to the sector of occurrence. In the graph 4.2.4 neonatal and post neonatal mortality rates according to the public and private sectors are presented. This graph presents significant difference in outcome between the public and the private health care sectors in Puerto Rico. Neonatal mortality rate in the public sector is at least twice that of the private sector. Post neonatal mortality also presents the same order of difference between both sectors.

These profound differences between the public and private health care delivery sectors are a reflection of social inequalities still present in Puerto Rican society. Although the public sector operates with an open door policy in terms to access of its services, these outcomes do not evidence a sustained effort regarding education, prevention and improvement of social conditions that affect neonatal as well as post neonatal mortality among the low income population.

Graph 4.2.4
Neonatal and Postneonatal Mortality by Health Sector
 Puerto Rico, 1990



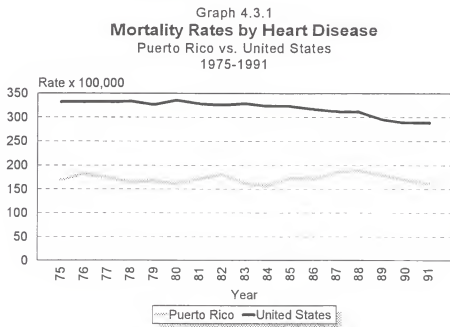
Data Source: Office Health Statistics, AFASS.

3. Leading Causes of Deaths in Puerto Rico

During the last 15 years Puerto Rico has presented a similar pattern to that of the United States regarding the leading causes of deaths. Heart disease and cancer have been the two leading causes of death in Puerto Rico as well as in the United States. However, HIV related deaths is now the fourth leading cause of death in Puerto Rico, while in the United States it is the fifth. This fact is quite disturbing and one that requires the most immediate attention from public health authorities. Diabetes mellitus, cerebral-vascular and accidents also continue to be important causes of deaths. In the next sections a detailed discussion on each of these causes is presented.

3.1 Heart Disease

In Puerto Rico the mortality rate attributed to heart disease has increased by 55.0 percent since 1950. This rate has increased from 104.1 per 100,000 deaths in 1950 to 115.2 in 1960 and to 155.5 in 1970. In 1980 this rate peaked at 181.4 and since then it has experienced a decrease to 161.4 in 1991 (see graph 4.3.1).

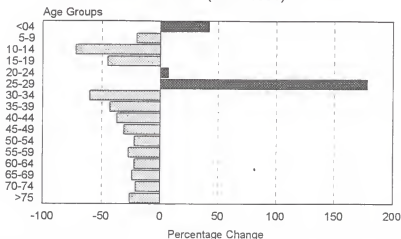


Data Source: Office Health Statistics, AFASS, Statistical Abstract of the United States, US Department of Commerce.

Puerto Rico compares favorably to the United States with respect to deaths credited to heart disease. Graph 4.3.1 indicates that the death rate in the United States attributed to heart disease is significantly greater than in Puerto Rico. In 1975 the death rate in the United States was 332.4 per 100,000 deaths while in Puerto Rico this rate was almost one hundred percent lower or 169.2 per 100,000 deaths. The trend in the rate of deaths credited to heart disease in the United States as well as in Puerto Rico has been a decreasing one, although at a faster rate in the former.

In the graph 4.3.2 a breakdown by age of the percentage change between 1977 and 1990 in the rate of death ascribed to heart disease is presented. All age groups from 30 years old and older have benefited from the decreasing trend in the deaths due to heart disease. However, the age groups of less than 4 years old and 20 to 29 years old have experienced increases in heart disease related deaths.

Graph 4.3.2
**Percentage Change in the Rate of Death
 by Heart Disease by Age Groups**
 Puerto Rico (1977-1990)

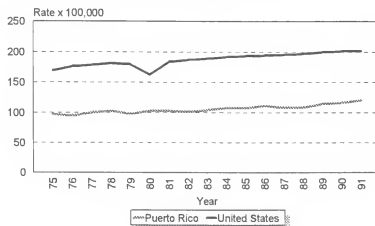


Data Source: Vital Statistics, Office Health Statistics, AFASS, Puerto Rico Department of Health.

3.2 Cancer

Over the last 40 years deaths in Puerto Rico attributed to cancer have grown significantly. The death rate in 1950 credited to cancer was 58.8 per 100,000 deaths, while in 1990 a rate of 120.4 was reported. This is a similar trend to the one experienced in the United States as can be seen in the graph 4.3.3.

Graph 4.3.3
Mortality Rate by Cancer Disease
 Puerto Rico vs. United States
 1975-1991



Data Source: Office Health Statistics, AFASS, Statistical Abstract of the United States, US Department of Commerce.

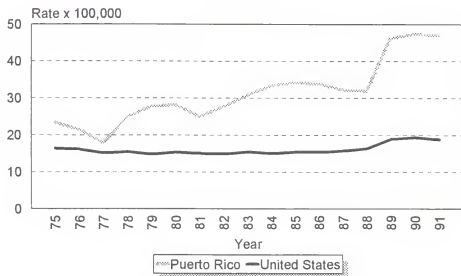
As with heart disease, deaths credited to cancer are higher in the United States than in Puerto Rico. In 1975 the rate in the United States was 169.7 compared to 97.1 in Puerto Rico. This rate increased in 1990 to 201.7 in the United States and to 116.4 in Puerto Rico.

3.3 Diabetes Mellitus

Diabetes Mellitus is one of the leading causes of death in Puerto Rico and one that has grown at a very fast pace. The rate of deaths attributed to diabetes mellitus has increased almost a thousand percent from 1950 to 1990. In 1950 a rate of 4.3 deaths per 100,000 was reported. In 1990 this rate augmented to 47.5 per 100,000 deaths.

The significance of this rate of growth in deaths attributed to diabetes mellitus can be understood when it is compared to the United States. In 1950 the rate of deaths in the United States attributed to diabetes mellitus was 16.2. In 1990 this rate increased by 20 percent in forty years. As can be observed in the graph 4.3.4 while the rate of deaths credited to diabetes mellitus has been toughly constant in the United States, in Puerto Rico it is increasing. All age groups, except those less than 20 years old, present dramatic increases in diabetes mellitus related deaths.

Graph 4.3.4
Mortality Rate by Diabetes Mellitus
Puerto Rico vs. United States
1975-1991



Data Source: Office Health Statistics, AFASS, Statistical Abstract of the United States, US Department of Commerce.

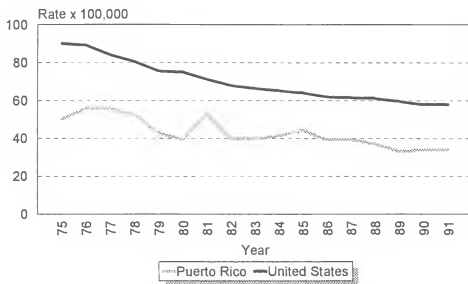
3.4 Cerebral-Vascular Diseases

In Puerto Rico, deaths related to cerebral-vascular diseases have been decreasing in the last 10 years. In 1980 the rate of deaths credited to cerebral-vascular diseases peaked at 53.4 per 100,000 deaths. Thereafter, the rate of deaths has decreased and in 1990 it reached 34.0 per 100,000 deaths.

This trend in Puerto Rico has been similar to the one experienced in the United States (see graph 4.3.5). Since 1976 the rate of deaths in the United States attributed to cerebral-vascular diseases has been, on average, 1.6 times that of Puerto Rico's.

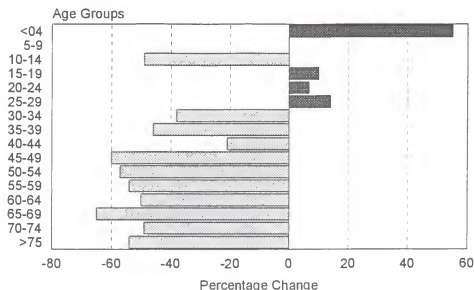
Examining the percentage change in the rate of deaths due to cerebral-vascular diseases according to age groups presented in the graph 4.3.6, it can be seen that all groups 30 years old or older have experienced decreasing trends. However, the death rate for the age group 4 years old or younger increased 56 percent from 1977 to 1990.

Graph 4.3.5
Mortality Rate by Cerebral Disease-Vascular Disease
Puerto Rico vs. United States
1975-1991



Data Source: Office Health Statistics, AFASS, Statistical Abstract of the United States, US Department of Commerce.

Graph 4.3.6
**Percentage Change in the Rate of Death
 by Cerebral-Vascular Diseases by Age Groups**
 1977-1990



Data Source: Vital Statistics, Office Health Statistics, AFASS, Puerto Rico Department of Health.

3.5 Deaths by External Causes

In this section, the rate of deaths attributed to car accidents, other accidents, homicides and suicides is discussed.

Table 4.3.1
Rate of Deaths by External Causes
 Puerto Rico - United States
 (1955-1990)

Year	P.R. Motor Accidents	U.S. Motor Accidents	P.R. Other Accidents	U.S. Other Accidents	P.R. Homicides	U.S. Homicides	P.R. Suicides	U.S. Suicides
1955	10.8	23.4	28.0	56.9	7.4	4.5	11.3	10.2
1960	14.2	21.3	30.9	52.3	7.1	4.7	10.7	10.6
1970	17.9	26.9	35.7	56.4	8.7	8.3	9.2	11.6
1980	17.3	23.5	30.9	46.7	15.1	10.7	9.1	11.9
1990	15.5	19.1	32.2	37.3	16.5	10.2	10.5	12.3

Source: Office of Health Statistics, Puerto Rico Department of Health, Statistical Abstract of the United States, US Department of Commerce. Rate per 100,000 deaths.

Deaths rates in Puerto Rico attributed to motor vehicle accidents have increased by almost 44 percent in the last 35 years. Although the United States exhibits a higher death rate due to motor vehicle accidents the gap is closing. In 1955 the United States experienced 2.17 times more deaths per 100,000 than Puerto Rico, whereas, in 1990 this gap closed to 1.23 times more deaths per 100,000 credited to motor vehicle accidents.

The deaths attributed to other accidents have experienced a similar trend. While in 1955 the death rate in the United States was 100 percent higher, this gap closed and in 1990 it was only 15 percent higher. The age group in Puerto Rico that has experienced the higher increase in the rate of deaths due to accidents has been the 80 to 84 years old group. This group has experienced an increase of over 250 percent in the rate of deaths by accidents in the last 10 years. This group is followed by the over 85 years old and the 75 to 79 years old groups which exhibited increases of 125.0 and 90.0 percent, respectively.

The rate of homicides in Puerto Rico has experienced a dramatic increase of over 122.0 percent in the last 35 years. Comparing this rate to the rate in the United States, Puerto Rico has exhibited a ratio of 1.6 more homicides per 100,000. This ratio decreased in 1970 but since, the gap has broadened. In the last 10 years the increase in the rate of homicides in Puerto Rico is linked to the increase in deaths of individuals in the 15 to 34 years old age bracket. The increase in the rate of homicides for this age group has been approximately 100.0 percent.

The rate of suicides in Puerto Rico has maintained almost constant since 1955. In 1955 was 11.3 per 100,000 deaths, then it decreased to 9.1 in 1980 and in the last 10 years it increased to 10.5. Puerto Rico always has experienced a lower rate of suicides than the United States. The surge of the last 10 years is explained basically by an increase in the rate of suicides in the older population. The age group 70 to 74 years old experienced an increase of 60.0 percent, while the increase for the 75 to 79 years old and the 80 to 84 years old groups was 120.0 and 175.0 percent, respectively.

Conclusions

1. The major causes of deaths in Puerto Rico are very similar to the ones experienced by the United States.
2. Heart disease continues to be the principal cause of death in Puerto Rico as well as in the United States. Although the rate in Puerto Rico is significantly lower.



3. The higher rate of deaths in Puerto Rico attributed to diabetes mellitus is a matter of concern. Additional research efforts should be conducted to find out what specific conditions in Puerto Rico explain a higher and increasing rate of deaths attributed to diabetes mellitus.

4. Also of concern is the rate of growth of deaths caused by external causes. The increased rate of accidental deaths and suicides among the elderly in Puerto Rico is a major problem that has to be addressed by the pertinent authorities. Also the trend in the rate of homicides among the young in Puerto Rico poses an additional threat to the well being of our society.

V. AIDS IN PUERTO RICO

As presented in the previous section HIV related deaths have become the fourth leading cause of death in Puerto Rico. Given its catastrophic nature and the rapid increase in the rate of deaths caused by HIV related diseases, AIDS has become the number one challenge to all policy makers at all levels of government.

Table 5.1.1
Rate of HIV Related Deaths
 Puerto Rico and the United States
 (1983-1991)

Year	Puerto Rico	United States
1983	1.2	1.1
1984	3.7	2.8
1985	7.3	5.9
1986	12.6	4.8
1987	14.3	7.5
1988	22.7	11.4
1989	27.2	12.5
1990	30.7	15.1
1991	35.7	22.5

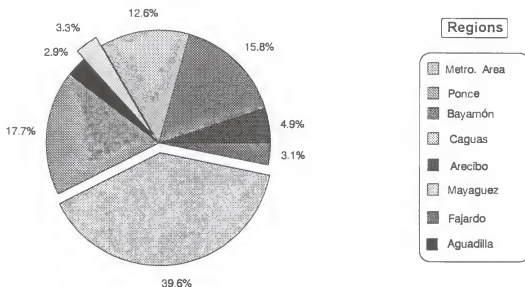
Source: Surveillance Report, CDC.



The magnitude of the AIDS problem in Puerto Rico can be understood when it is compared to the United States. Table 5.1.1 presents a comparison of the rate of HIV related deaths in Puerto Rico and United States since 1983.

As can be observed in Table 5.1.1 the rate of deaths in Puerto Rico attributed to AIDS is approximately 2 times that of the United States. Similar to the United States the highest prevalence of confirmed cases is found in the principal metropolitan areas. The San Juan Metropolitan Area reported in April 1993, 39.6 percent of all confirmed cases (see graph 5.1). This is followed by the Ponce Region with 17.7 percent and Bayamon with 15.8 percent of all confirmed cases in Puerto Rico.

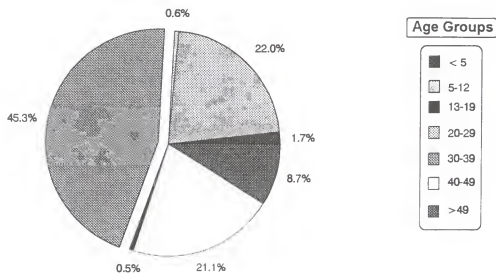
Graph 5.1
**Acquired Immunodeficiency Syndrome
Confirmed Cases by Health Regions**
Puerto Rico



Data Source: Surveillance Report, 04-08-93 (O.C.A.S.).

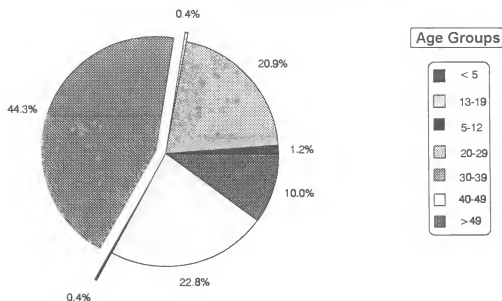
Also very similar to the United States is the age distribution of the confirmed AIDS cases. In Puerto Rico 45.3 percent of all confirmed cases belong to the age group of 30 to 39 years old, which is very similar to the 44.3 percent in the United States. The other age group with the highest prevalence is the over 40 years old. In Puerto Rico 30.0 percent of all confirmed cases belonged to this group and 32.0 percent in the United States (see graphs 5.2 and 5.3).

Graph 5.2
**Acquired Immunodeficiency Syndrome
 Confirmed Cases by Age**
 Puerto Rico



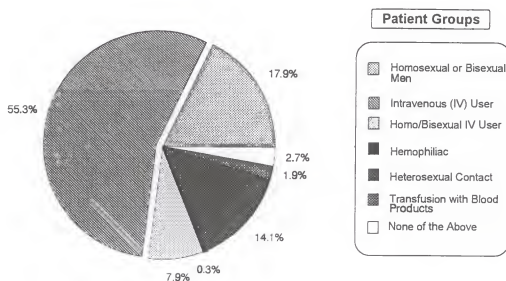
Data Source: Surveillance Report, 04-08-93 (O.C.A.S.)

Graph 5.3
**Acquired Immunodeficiency Syndrome
 Confirmed Cases by Age**
 United States



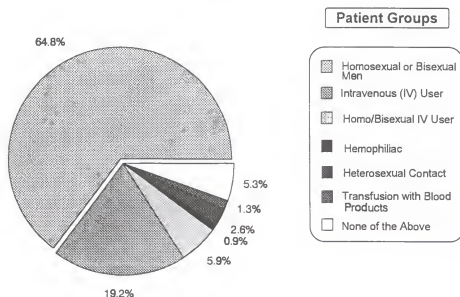
Data Source: CDC Surveillance Report, February 1993.

Graph 5.4
Acquired Immunodeficiency Syndrome Total
Confirmed Cases in Adult/Adolescent by Patient Groups
 Puerto Rico



Data Source: Surveillance Report, 04-08-93 (O.C.A.S.).

Graph 5.5
Acquired Immunodeficiency Syndrome Total
Confirmed Cases in Adult/Adolescent by Patient Groups
 United States

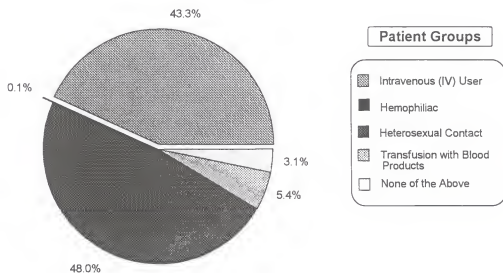


Data Source: CDC Surveillance Report, February 1993.

However, when the number of confirmed cases is segmented by patient groups, the similarities between Puerto Rico and the United States diminished significantly. In Puerto Rico the main group of AIDS patients is the intravenous drug user. This group accounts for 55.3 percent of all confirmed cases compared to 19.2 percent in the United States. On the other hand, in the United States the group that account for the most cases is the group of homosexual or bisexual men. In the United States 64.8 percent of all confirmed cases belonged to this group, while in Puerto Rico this group accounted for 17.9 percent of all cases (see graphs 5.4 and 5.5).

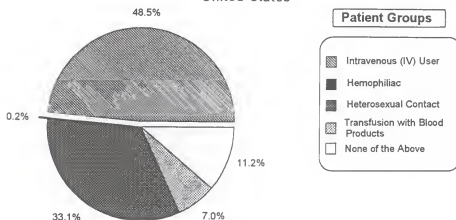
AIDS among females in Puerto Rico is also a matter of great concern for all policy makers. In Puerto Rico in 1990 the rate of prevalence in confirmed AIDS was $105.41 \times 100,000$, which is significantly higher to the rate of $21.52 \times 100,000$ in the United States. Another important fact about AIDS among females in Puerto Rico is its distribution according to patient group. The main patient group of females with AIDS in Puerto Rico is composed by those who contracted AIDS through heterosexual contact. This group represents 48.0 percent of all confirmed cases in Puerto Rico and 33.1 percent in the United States. The intravenous drug user represents 43.3 percent of all cases in Puerto Rico while in the United States 48.5 percent composes the main group among females with AIDS (see graphs 5.6 and 5.7).

Graph 5.6
**Acquired Immunodeficiency Syndrome Total
Confirmed Cases in Adult/Adolescent Females by Patient Groups
Puerto Rico**



Data Source: Surveillance Report, 04-08-93 (O.C.A.S.).

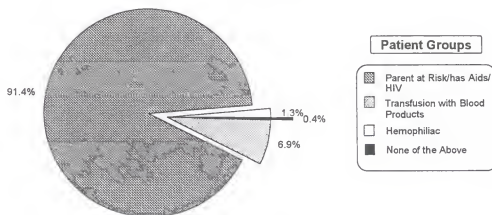
Graph 5.7
**Acquired Immunodeficiency Syndrome Total
 Confirmed Cases in Adult/Adolescent Females by Patient Groups**
 United States



Data Source: CDC Surveillance Report, February 1993.

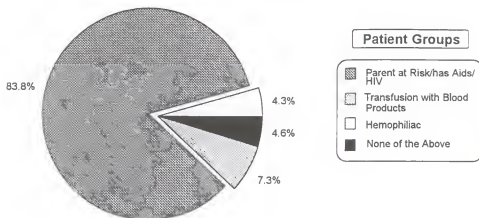
As a result of the characteristics of the AIDS patient groups in Puerto Rico, which is predominantly intravenous drug user and female AIDS caused by heterosexual contact, pediatric AIDS has become a major problem. In the graphs a comparison between Puerto Rico and the United States of AIDS pediatric cases by 100,000 population is presented. The higher rate in Puerto Rico is dramatic. As can be observed in the next chart over 90.0 percent of all pediatric cases in Puerto Rico are caused by the parent being HIV positive compared to 84.0 percent in the United States (see graphs 5.8 and 5.9).

Graph 5.8
**Acquired Immunodeficiency Syndrome Total
 Confirmed Cases in Pediatric by Patient Groups**
 Puerto Rico



Data Source: Surveillance Report, 04-08-93 (O.C.A.S.).

Graph 5.9
**Acquired Immunodeficiency Syndrome Total
 Confirmed Cases in Pediatric by Patient Groups**
 United States



Data Source: CDC Surveillance Report, February 1993.

Conclusions

1. AIDS in Puerto Rico poses a major public health problem as well as a financial one. The rate of growth of AIDS in Puerto Rico requires drastic measures to prevent and reduce the spread of the disease. One of the challenges is that the principal mode of transmission is by the intravenous drug user which is a group hard to reach and educate.
2. The intravenous drug user as a patient group is characterized with a lower income and no health insurance. These two characteristics represent that the burden of their health care lies with the government.
3. Heterosexual contact being the main mode of transmission among women in Puerto Rico also poses the need to promote sexual activity where safe sexual techniques are applied. An effective educational program in this respect will also reduce the number of pediatric AIDS cases.

VI. DIAGNOSTIC RELATED GROUPS AMONG THE MEDICARE POPULATION

In this section a discussion on DRGs hospital discharges is presented. This discussion has the purpose of presenting the morbidity patterns of the Medicare population in Puerto Rico at

least from an inpatient perspective. This discussion does not intend to present the merits or flaws of the Prospective Payment System as it was applied to Puerto Rico. Also the discussion, for simplicity, will focus around the 10 most frequent DRGs in Puerto Rico. A case mix index was computed for these 10 most frequent DRGs. Also, data is presented by hospital size and ownership: public or private.

The most frequent DRGs in Puerto Rico are presented in Table 6.1.1. It is interesting to note that 23,824 discharges or 27.0 percent of the total discharges for the 10 most frequent DRGs are related to respiratory diseases. The two DRGs that account for the most discharges are related to diseases and disorders of the circulatory system. These 10 most frequent cases account for a case mix index of 0.9087.

Table 6.1.1
The 10 Most Frequent DRGs in Puerto Rico
(1992)

DRG	Description	Relative Weight	Total Discharges
294	Diabetes > 35 years old	.7491	2,000
337	Transurethral Prostatectomy with CC.	.6066	3,576
277	Cellulitis, > 17 years old, with CC.	.9036	3,576
88	Chronic obstructive respiratory disease.	.9941	7,663
182	Esophagitis, Gastroenteritis and Miscellaneous digestive disorder, > 17 years old with CC.	.7721	7,696
96	Bronchitis and Asthma, > 17 years old, with CC.	.9369	8,244
89	Simple pneumonia and pleurisy, > 17 years old, with CC.	1.1581	7,917
14	Specific cerebrovascular disorder except transient ischemic attack.	1.2160	9,524
140	Angina pectoris	.6219	18,583
127	Heart failure and shock	1.0150	18,882

Source: Puerto Rican Foundation for Medical Care (PRO).

Table 6.1.2 presents a comparison of the relative case mix index¹⁵ according to bed size and ownership.

Table 6.1.2
**Relative Case Mix Index of Hospitals According
to Bed Size and Ownership**

Ownership\Bed Size	149 or less	150 to 249	250 or greater
Public	0.8786	0.9194	1.3495
Private	0.9552	1.0561	1.2532

Source: Puerto Rican Foundation for Medical Care (PRO).

As expected the relative case mix index increases with number of beds. Public hospitals with less than 250 beds have a relative case mix index less than 1 as compared to a private hospital CMI of 1.0561. This reflects in part, the organization of the public health care system into levels of care. These smaller public hospitals are Area hospitals in which a secondary level of care is provided. The more complicated cases that require more resources are attended at the Regional level. In Puerto Rico, there are six regional hospitals and one area hospital with 250 beds or more.¹⁶ However, the skewness of this distribution could also be reflecting the movement of more complicated cases into the regional hospitals.

In the private sector a less skewed distribution of complicated cases towards the large hospitals is observed. This could result from competitive pressures in the private sector to provide more complex services in order to attract patients. An interesting comparison is the case mix indexes for hospitals 250 beds or larger in the public and private sector. The case mix index for this group of hospitals is at least 8.0 percent higher in the public sector. Several factors may be impinging on this result. First, is the organization of health care delivery in the public sector, already described here. Second and more important is the fact that most regional hospitals serve as teaching hospitals in Puerto Rico. As teaching hospitals they also provide some services that are not frequently attended in private hospitals and also they account with the highest number of cases of DRG 475, respiratory system diagnosis with ventilator support.

¹⁵ The relative case mix index is defined here for the 10 most frequent cases for each hospital relative to the 10 most frequent cases of all the hospitals.

¹⁶ The area hospital is the Carolina Area Hospital with 250 beds.

Conclusions

1. Diagnoses related to conditions of the heart and respiratory problems explain more than 65.0 percent of the discharges attributed to the ten most frequent DRGs.
2. The public sector reflects skewed distribution of the more complicated cases toward the regional hospitals. This skewness may reflect the organization of the system, and the possibility of transferring more complicated patients to the larger public hospitals.
3. The fact that medium size hospitals in the private sector have a relative case mix index greater than 1.00 and greater than public hospitals of the same size may be the result of competitive pressures. The private hospital market in Puerto Rico may induce hospitals to be endowed with a more diversified portfolio of services in order to attract more patients.
4. Finally, we understand the need to extend and refine this analysis. It is important to examine how the aggregated case mix index behaves historically and how it compares with the behavior exhibited by hospitals in the United States.

FINAL OBSERVATIONS

In this report we have provided an overall description of the economy in Puerto Rico, its employment and earnings structure. Where possible we compare these findings with the United States to provide the readers a point of comparison.

Results showed that the health status of the Puerto Rico population have improved significantly with economic growth. However, there is ample room for improvements specifically, in the area of infant mortality, AIDS, diabetes mellitus and cerebra-vascular diseases.

In our next report, we intend to correlate these indicators of health status, with health care utilization and spending patterns of the Puerto Rican population.

This analysis will provide the necessary background to analyze the impact of United States health care reform proposals on Puerto Rico.



**THE PUERTO RICO HEALTH CARE SYSTEM:
ORGANIZATION, DELIVERY, AND FINANCING
OF HEALTH SERVICES**

PROGRESS REPORT 2

GRANT NUMBER: 18-C-90240/2-01

October, 1994

Submitted by:

*INSTITUTO DE ADMINISTRACIÓN Y POLÍTICA
DE SALUD DE PUERTO RICO, Inc.*



BOARD OF DIRECTORS

President

Enrique Baquero, M.H.S.A.

Vice President

Alberto Varela, M.D.

Secretary- Treasurer

Eduardo Sotomayor, M.H.S.A.

Directors

Salvador Tió, Esq.

Jesús Rodríguez, M.H.S.A.

Mrs. Eugenia Josefina Santiago

Mr. José Mulero

Mr. Cruz Irizarry

Mr. Guillermo Brown, MHSA

José Varela, Esq.

Magaly Maldonado, M.D.

BOARD OF ADVISERS

Members

Margarita Alegría, Ph.D
Carmen Allende de Rivera, Ph.D
William Martínez
José Julián Alvarez
Felipe Bedit
Pedro Borrás, M.D.
Víctor A. Carrán
José Cuevas
Gabriel Dolagaray
Francisco J. Echegaray, M.D.
Miguel Echenique, Ph.D
Luis Izquierdo Mora, M.D.
Jorge Lastra, M.D.
José Madera, M.S.
Celia Molano, MHSA
Rita Osorio, Ph.D.
Saturnino Peña Flores, MHSA
Rafael Ramírez, M.D.
Andrés Rodríguez, CPA
Ruby Rodríguez, MHSA
Luis Salgado
José Serrano Gadea, MHSA
Luis Serrano Vega, MHSA
Erik Suárez, Ph.D.
Miguel Vázquez Deynes

PROJECT STAFF

Principal Investigator

Roberto Ramírez, Ph. D.

Project Director

William Rodríguez González, M.S.

Data Analyst

María E. Velázquez, M.P.H.

Assistant Investigator

Iris Anette Figueroa Rivera

Secretary

María A. Henríquez Montes

Consultant to Project

Allen Dobson, Ph.D.

TABLE OF CONTENTS

	Page
I. Introduction	1
I.A Overview of the Puerto Rico Health Care System	2
Organization of the Health Care System	2
I.B Physician Supply in Puerto Rico	4
I.C Utilization of Health Services: Introduction	6
I.D Utilization of Health Services: Outpatient Visits	7
I.E Hospital Bed Supply in Puerto Rico	10
I.F Utilization of Health Services: Inpatient Care	12
I.G Discussion and Comments	14
II. Expenditures in Health Services in Puerto Rico	16
III. Health Spending Analysis	20
Health Spending Performance	21
Conclusion	30

TABLES INDEX

	Page
Table 1 Percentage of Population Enrolled in HMO's, Puerto Rico (1992)	4
Table 2 Number of Physicians in Practice in Puerto Rico (1990)	5
Table 3 Rate of Outpatient Visits Adjusted by Age Group (1989)	8
Table 4 Rate of Outpatient Visits Adjusted by Family Income (1989)	9
Table 5 Relation Between Population and Hospital Beds, Puerto Rico	11
Table 6 Distribution of Beds by Health Region, Puerto Rico (1990)	11
Table 7 Comparison Between Authorized Beds and Beds in Use, Puerto Rico (1990)	12
Table 8 Utilization Data in General Hospitals by Service Sector, Puerto Rico and United States (1989-90)	13
Table 9 Puerto Rico Health Expenditures, by Source of Funds and Type of Expenditures, Puerto Rico 1990	17
Table 10 Per capita Health Expenditure for United States and Puerto Rico (1990)	18
Table 11 Total Health Expenditures as a Percent of Gross Domestic Product for 23 Organization for Economic Cooperation and Development (OECD) Countries, United States, and Puerto Rico, (1980-1990)	22
Table 12 Public Health Expenditures as a Percent of Total Health Expenditures for 23 Organization for Economic Cooperation and Development (OECD) Countries, United States, and Puerto Rico, (1980-1990)	24
Table 13 Per capita Health Spending for 23 Organization for Economic Cooperation and Development (OECD) Countries, United States, and Puerto Rico, (1980-1990)	25
Table 14 Per capita Gross Domestic Product (GDP) for 23 Organization for Economic Corporation and Development (OECD) Countries, United States, and Puerto Rico, (1980-1990)	26
Table 15 Nominal Elasticity of Per capita Health Spending Relative to Percapita Gross Domestic Product (GDP), Puerto Rico, United States, and other Countries (1980-1990)	27

TABLES INDEX
(Continuation)

	Page
Table 16 Annual Percentage Change Per capita Health Spending, United States and Puerto Rico (1980-1990)	28
Table 17 Annual Percentage Change Per capita GDP, United States and Puerto Rico (1980-1990)	29

GRAPHS INDEX

	Page
Figure 1 Percent of Physician Visits to the Public Sector, Puerto Rico (1975-1989)	7
Figure 2 Percentage Distribution of Outpatient Visits to Physician by Service Sector and Age Group, Puerto Rico (1988)	8
Figure 3 Beds Growth in General Hospitals, Puerto Rico (1966-1986)	10
Figure 4 Percentage Distribution of Expenditures for Personal Health Care, by Type of Payer, United States and Puerto Rico (1990)	20
Figure 5 Percentage Point Growth in Health Expenditures as a Percent of GDP for the Five Countries of the OECD, United States, and Puerto Rico (1980-1990)	23
Figure 6 Per capita Health Spending and Per capita GDP for Puerto Rico, United States and other Organizations for Economic Cooperation and Development Countries (OECD), (1980, 1985, 1990)	27

**PROJECT:
THE PUERTO RICO HEALTH CARE SYSTEM:
ORGANIZATION, DELIVERY, AND FINANCING
OF HEALTH SERVICES**

GRANT NUMBER: 18-C-90240/2-01

I. INTRODUCTION

In this second progress report of the Project "Coordinating Health Care Reform with the U. S. Territories: The Case of Puerto Rico", we present our findings on the second and third objective of the Project. These two objectives are to:

- a) Explain the levels of health expenditures and their growth in Puerto Rico.
- b) Establish the structural relationship between health services utilization and health care financing of the Puerto Rico health care system.

In order to provide a perspective of the data presented, we begin with an overview of the health system in Puerto Rico. This overview is intended to provide general information on the dual nature of the Puerto Rico health system, in terms of resources and utilization of services.

Within this context we present an analysis of the structure of the utilization of services and sources of funds of the health system in Puerto Rico. We also present trends on utilization of health care services and compare them to the United States. Finally the growth in expenditures and how it correlates to the Gross Domestic Product is presented and contrasted to the United States.

This report provides information that is critical to the understanding of how health care reform would affect Puerto Rico for the first time. The study details Puerto Rico baseline expenditures in terms of "sources and uses" and notes how these expenditures are generated. The relationship between public and private sector utilization levels is seen as particularly important. The structural analysis presented in this paper could serve as a starting point for a careful analysis of how reform might affect the welfare of Puerto Rico households and businesses.

I.A Overview of the Puerto Rico Health Care System

Organization of the Health Care System

Health care in Puerto Rico is provided by two distinct health sectors: the public and private. Even though both sectors offer almost the same services there are significant differences in structure and organization. The public system, which was the first to evolve, provides health care mainly to the medically indigent population, and is financed principally through government appropriations. Its organization is strongly influenced by the Spanish municipal health center and is built on the principles that the state must play an active role to guarantee access to health care to its population, either by directly providing services or contracting providers in the private sector. The private sector, in turn, is financed almost entirely by health insurance, and its organization and operation closely resembles the U.S. health care system.

The Commonwealth of Puerto Rico Department of Health and the Health Facilities and Services Administration constitute the executive body that has the responsibility for health care delivery in the public sector. Among its responsibilities is that of ensuring the provision of health services through its facilities to the entire population, even though it actually provides care to approximately half of the population, most of which are medically indigent. The public system is organized in a regional scheme comprising six regions and two sub-regions. These regions are: 1)Metropolitan (San Juan and the northeastern coast) 2) Arecibo 3) Bayamon 4) Caguas 5) Mayaguez 6) Ponce, and the sub-regions of Aguadilla and Fajardo. The regional system is segmented into sixteen areas. The Regional and Area facilities represent the tertiary and secondary tiers, respectively.

At the primary level, the public system operates a network of municipal health centers designed to provide preventive and outpatient care to the population. Ambulatory services provided at these centers are of two types: regularly scheduled clinics that provide primary and secondary preventive care for specific conditions, and acute care on a walk in basis.

Hospitalization and specialized ambulatory services are provided in general acute care hospitals designated as the area level. This secondary echelon provides support to health centers located in municipalities included in the Health Area. Highly specialized care is provided in regional hospitals, comprising the tertiary tier of the public system. The public sector operates a network of area and regional hospitals with approximately 4,600 authorized beds. In terms of its operation the public system resembles that of a closed panel staff model of health care delivery.

The public system is financed mostly by funds from the Commonwealth of Puerto Rico. While Puerto Rico participates in the Medicaid Program, with 1.76 million recipients, the third largest enrolled population behind California and New York (HCFA Program Statistics, 1990), the Federal participation rate is set at a minimum 50 percent with a limit in the Federal dollar amount of \$79 million. This cap was increased for fiscal year 1994-95 to \$116.5 million. These federal funds which represent less than 20 percent of total expenditures, along with an additional \$550 million of Commonwealth and municipal funds are employed to pay for the operating expenses of the public health care delivery system.

The private sector in Puerto Rico does not possess a clearly delineated health care delivery structure as does the public sector, even though there exist networks of physicians and health care facilities organized by health insurance companies. In this sector private health insurance and Medicare funds constitute the main financing sources of health care expenditures. The predominant payment mode to physicians is a discounted fee for service, and hospitals are paid on a per diem basis, and on a local formula of the Medicare PPS-DRG system.

Although the health insurance market offers a range of alternatives extending from indemnity insurance to HMOs, the predominant organizational alternative is the preferred provider arrangement. In this arrangement health insurance companies negotiate discounted fees with physicians. There are 17 HMO's operating in Puerto Rico and only 7 percent of the Puerto Rico's population is enrolled. Due to an excess supply of physicians in the private sector, most participate in more than one insurance company and face different fee schedules depending on the health insurance company. The private insurance system covers approximately 1.4 million persons. In addition, according to Medicare beneficiary enrollment statistics, in 1992 there were 445,788 enrollees in Part A and 300,960 enrollees in Part B; thus 67 percent of Puerto Rico elderly, 33 percent, do not have Medicare coverage for physician services. Those who do have Part B coverage, for the most part use the private sector, while those without Part B coverage generally use the public sector, or pay private physicians through out-of-pocket expenses.

Anecdotal evidence obtained from interviews with hospital executives and physicians explain the existence of the so-called Medicare-Medicaid patient. These are patients who are unable to pay the Part A deductible and as such have traditionally been admitted to public hospitals, who waive the deductible. In recent years, and in part related to excess bed capacity, private hospitals have also engaged in the practice of waiving deductibles to increase admissions.

Table 1
Percentage of Population Enrolled in HMO's
Puerto Rico
1992

Organization	Participants
Aso-Medic, Inc.	13,820
Cooperativa de Servicios de Salud Castañer	1,244
Damas Health Plan, Inc.	21,571
Golden Cross HMO	1,165
Group Sales & Service of Puerto Rico	54,000*
Hyder Health Plan, Inc.	11,181
Island Healthcare, Inc.	20,926
Mennonite General Hospital Health Plan	25,460
Plan Comprensivo de Salud, Inc.	1,755
Plan de Salud U.I.A., Inc.	4,713
Plan de Salud Bella Vista, Inc.	3,333
Plan de Salud de la Federación de Maestros	23,956
Plan de Salud Hospital Metropolitano, Inc.	2,600
Plan Médico Doctor Gubern., Inc.	153
Plan Médico U.T.I. de Puerto Rico, Inc.	1,602
Servi-Medical, Inc.	15,500
Total	228,971

* Estimated Figure

Data Source: Office of Insurance Commissioner

I.B Physician Supply in Puerto Rico

According to the Health Professions Registry of 1989, the latest available, there were 6,269 practicing physicians in Puerto Rico or 178 physicians per 100,000 population¹ (see Table 2). The largest physician group comprises general practitioners with 2,730 or 44 per-

¹ Department of Health, Administration of Health Services Facilities, Office of Health Statistics, September 23, 1993.

cent of total physicians in practice. Pediatrics with 564 or 9 percent of the total active physician population is the largest specialty group. Internal Medicine is the second largest specialty group with 508 physicians or 8 percent of all active physicians in Puerto Rico. The third, fourth and fifth largest specialty groups are: obstetrics and gynecology; psychiatry; and, family medicine, respectively.

Table 2 also shows the distribution of physicians in Puerto Rico by health region. As can be observed in this table, the Metropolitan Region has a rate of physicians (315 per 100,000) more than three times that of the Arecibo region with the smallest concentration of physicians (99 per 100,000). In terms of the rate of primary care physicians, the Metropolitan Region has the highest concentration with 185 per 100,000 population. Even though as expected, there is a relatively high concentration of physicians in the Metropolitan Region, this concentration of physicians by U.S. standards is appropriate.

Table 2
Number of Physicians in Practice in Puerto Rico
1990

Health Region	Number of Physicians	Rate of Physicians*	Number of Primary Care Physicians	Rate of Primary Care Physicians*
Aguadilla	204	99	172	83
Arecibo	482	118	340	83
Bayamón	841	145	609	106
Caguas	744	144	570	111
Fajardo	125	98	93	73
Mayaguez	506	145	356	124
Metropolitan	2631	315	1549	185
Ponce	733	131	551	98
Puerto Rico Total	6269	178	4301	122

* Number of physicians per total 100,000 population of the region.

An important fact about physician supply in Puerto Rico is the number of primary care providers relative to the total population of physicians. Primary care physicians, defined as: general and family practice, internal medicine, pediatrics, and obstetrics/gynecology, comprise 4,301 physicians, or 69 percent of total physicians practicing in Puerto Rico. In the United States there are 260,859 primary care physician or 39.9 percent of total physicians. As such the ratio of primary care to specialty care physicians in Puerto Rico is dramatically different than on the US mainland. This proportional distribution between primary care and other specialties is beneficial to any health policy strategy that relies on the former as

gatekeepers of the health care system, especially considering the objectives of increasing the supply of these providers by the year 2000.

However, there is a concern regarding the distribution of physicians serving the public and private sectors. According to the last registry of physicians more than 2,000 general practitioners (or 60 percent) are employed in the public sector. This distribution is reversed when the other specialties within primary care are considered; 60 percent of internists, 68 percent of obstetrics/gynecology, 61 percent of family physicians and 52 percent of pediatricians are affiliated with a private institution. This distribution of physicians is ever more biased towards the private sector when the **non-primary** care specialties are considered. These data suggest that the public sector is heavily dependent on general practitioners to provide services at its primary care facilities and, with the exception of pediatricians, the proportion of other primary care specialties, as well as non-primary care specialties is greater in the private sector. In contrast, the distribution of the mainland U.S. physician workforce is approximately 30 percent primary care and 70 percent specialists, U.S. objectives call for a 50 percent split between primary care and specialist physicians by the year 2000.

I.C Utilization of Health Services: Introduction

There are several factors that determine the utilization of services in the public and private health sectors. According to Muñoz (1986), health insurance status is the main determinant of private sector health services utilization. A person with private health insurance is at least 7 times more likely to use the private sector than a person without private health insurance.

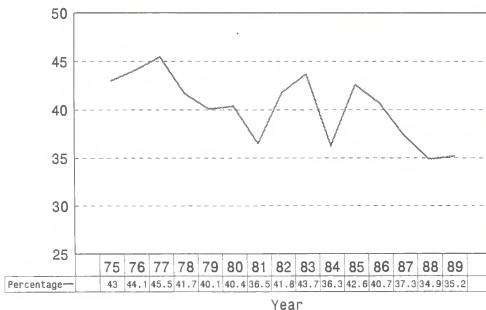
Health insurance coverage in Puerto Rico contrast with coverage in the U.S. mainland. The Commonwealth government has historically followed a policy of universal access. Under this policy, the government assigns priority to the medically indigent population, which amount to approximately 50 percent of the population. Also The Master Sample Survey of the Commonwealth of Puerto Rico, which is a cumulative household survey, consistently shows that 50 percent of the population is covered by some form of private health insurance. Included among this percentage are the Medicare beneficiaries, which account for 12.7 percent of the population. It is important to clarify that Medicare insurance in Puerto Rico is viewed as a private program, even though it is a federal instrument, because those beneficiaries gain access to the private health care sector by virtue of Medicare payment. Since Puerto Rico, unlike the U.S. mainland, operates two distinct health care systems, private and public, the population with private insurance generally uses the private system; and the medi-

cally indigent use the public system. As a result of this structural difference, and the fact that the Commonwealth government covers in excess of 80 percent of public health care expenditures, universal coverage of the population is achieved. This datum on the percentage of insured population in Puerto Rico has been validated by several sources. For example, a household survey conducted by Blue Shield of Puerto Rico (1991) and the 1990 Program Statistics of the Health Care Financing Administration have reported a total of 1.76 million Medicaid recipients in Puerto Rico, which represent approximately 50 percent of the population.

I.D Utilization of Health Services: Outpatient Visits

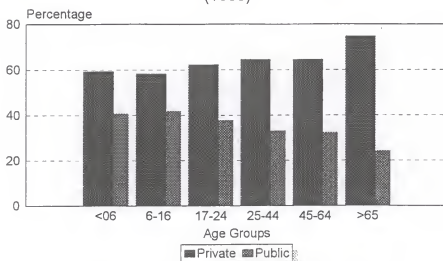
Utilization of health services in the public and private sectors in Puerto Rico has not followed the same pattern as their distribution of recipients. While there are no data readily available, it is generally understood that Medicare Part A-only beneficiaries mainly use the government health system which waives deductibles payments in order to provide care. According to results from the Master Sample Survey of the Puerto Rico Department of Health, 35 percent of all outpatient visits to a physician were done in the public sector. The proportion of visits to the public sector has been decreasing historically. According to Figure 1, in 1975, 43 percent of all outpatient visits were done in the public sector. This proportion decreased to 35 percent in 1989.

Figure 1
Percentage of Physician Visits to the Public Sector
Puerto Rico
(1975 - 1989)



Data Source: Puerto Rico Department of Health, Master Sample Survey (1975-1989)

Figure 2
Percentage Distribution of Patients Visits
to Physician by Service Sector and Age Groups
Puerto Rico
(1988)



Source: Department of Health, Population Sample (AFASS, 1988)

In Figure 2 we present the percentage distribution of outpatient visits to physicians by sector and age group. This figure indicates that age is inversely correlated with public sector utilization. The age group with the highest proportion of visits to the public sector is below 16 years of age. The proportion of visits to the public sector by age group continues to decrease as age increases. Individuals 65 years old or more registered 24 percent of their visits in the public sector. This fact tends to indicate that the Medicare Program provides access to its beneficiaries to the private sector. Also, the availability and coordination of services required by the Medicare eligible population is greater in the private sector, which may explain, in part, the lower number of visits to the public sector by the population in this age group.

Table 3
Rate of Outpatient Visits Adjusted by Age Group
Puerto Rico
(1989)

Age Group	Rate of Outpatient Visits				
	Public	Private	Both	% Public	% Private
less than 6 years	2.7	4.0	6.7	40.7	59.3
6-16	1.2	1.7	2.9	41.7	58.3
17-24	1.2	2.0	3.2	37.7	62.3
25-44	1.4	2.8	4.3	33.0	67.0
45-64	1.7	3.5	5.4	32.0	68.0
65 or more	1.6	5.0	6.7	24.1	75.9

Source: Puerto Rico Department of Health, Master Sample Survey

The rate of outpatient visits by age group, follows the expected curvilinear relationship (see Table 3). Children less than 6 years old along with individuals 65 years or older accounted for the highest rate of physicians visits with 6.7 per person. The number of visits per person in the age group decreases for those between 6 and 16 years old and increases for the older groups.

The number of physician visits per person by family income level provides an indirect indicator of access to health care services. In 1989, the average number of visits to physicians for the whole population was 4.5 visits per person. Table 4 presents the rate of outpatient visits according to family income. This rate is nearly constant across all income categories. This result supports the view that the present system provides equal access to physician services across income groups.

The data in Table 4, which shows a stable pattern of visits across income groups, appear to contrast with data on Table 3, which show a consistently higher use of outpatient visits to the private sector. Since the private sector has traditionally been known to serve the privately insured population, it must also be suggested that a portion of the medically indigent may spend out-of-pocket resources to purchase care in this sector, and thus explain in part, the lower use of the public sector. Also, the fact that in Puerto Rico Medicare affords access to private sector providers, unlike Medicaid, may also contribute to increasing the proportion of outpatient care in the private sector.

Table 4
Rate of Outpatient Visits Adjusted by Family Income
Puerto Rico
(1989)

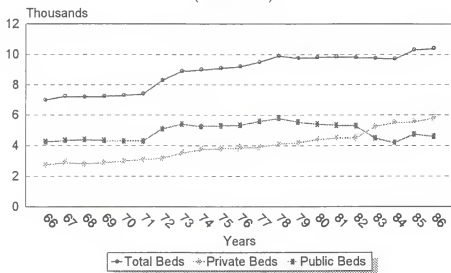
Family Income	Rate of Outpatient Visits
less than \$5,000	4.7
\$5,000 - \$9,999	4.2
\$10,000 - \$19,000	4.7
\$20,000 and more	4.6
Puerto Rico	4.5

Source: Puerto Rico Department of Health, Master Sample Survey

I.E Hospital Bed Supply in Puerto Rico

Hospital services follow similar utilization patterns as compared to outpatient services. In 1990 the public sector had 4,375 compared to 5,778 beds in the private sector². However, it is important to analyze the distribution of hospital beds from a historical perspective. During the period of 1965 to 1990 the number of hospital beds has increased from 7,000 to 11,000. This represents an annual rate of growth of approximately 1.0 percent. Figure 3 shows that the private sector was the principal source of this growth. During the mid 1970's, the public sector initiated a process of reorganization which resulted in the addition of the Health Area Level to the structure of the public health system. This resulted, in turn, in the consolidation into this level, of municipal hospital beds that existed before the public system was re-structured, and a net decrease in the number of beds in the public system.

Figure 3
Beds Growth in General Hospitals
Puerto Rico
(1966 - 1986)



Source: Puerto Rico Department of Health, Health Facilities Report

In order to establish the relationship between population and hospital beds, we ran two general linear regressions. These regressions attempt to explain how the hospital bed supply has responded to population growth. Table 5 shows the result of these regressions. The results indicate that the number of hospital beds in the private sector, unlike the hospital beds supply in the public sector, has responded to population growth. The number of beds in the private sector increases at a rate of 4.1 beds per increase of 1,000 inhabitants.

² Statistical Health Facilities Report, 1990. Puerto Rico Department of Health.

Table 5
Relation Between Population and Hospital Beds
Puerto Rico

Dependent Variable	Population coefficient
Public hospital beds	0.0032 t = 0.8 (0.004)
Private hospital beds	0.0041* t = 20.5 (0.0002)

* Significant at the .001. Standard error in parenthesis.

In Table 6, we describe the distribution of authorized hospital beds by health region. The Commonwealth Department of Health is responsible for monitoring and regulating bed supply in both the public and private health sectors, as well as authorizing changes in bed capacity. Puerto Rico has a ratio of 2.8 beds per 1,000 population. Only the Bayamon Region has a significant ratio of hospital beds below the Island average. However, it is important to note that the Bayamon Region is adjacent to the Metropolitan Region. This means that part of the Bayamon Region population could, in theory, also be served in the Metropolitan Region. For example, it is a common practice for a patient living in the city of Bayamon to be hospitalized in a private hospital in San Juan. However it is also customary to observe the opposite behavior.

Table 6
Distribution of Beds by Health Region
(1990)

Health Region	Authorized beds per 1,000: Both Sectors	Authorized beds: Public	Authorized beds per 1,000: population Public	Authorized beds: Private	Authorized beds per 1,000 : population Private
Arecibo	2.20	556	1.36	377	0.92
Bayamon	1.80	415	0.71	639	1.10
Caguas	2.70	568	2.24	844	3.33
Mayagüez	2.80	763	2.64	621	2.15
Ponce	3.00	782	1.39	917	1.64
Metro	3.80	1,270	1.52	2,380	2.84
Puerto Rico	2.80	4,354	1.48	5,778	1.97

Source: Puerto Rico Department of Health, Health Facilities Report

Table 6 also reveals that the public sector supplies most of the hospital beds in the Arecibo and Mayaguez Regions. These are the only two regions where the public sector

provides at least 55 to 60 percent of available hospital beds. This distribution contrasts with the distribution of beds for Puerto Rico, where the public sector supplies 43 percent of available beds.

Table 6 provides an adequate description of hospital bed capacity in Puerto Rico. Notwithstanding, it is important to compare the capacity of authorized beds with the rate of beds in use. This is important because, by definition, beds in use are those that hospitals have available for occupancy. Also, the difference between authorized beds and beds in use yields an approximation of excess capacity within the hospital system. Table 6 provides information on the number of beds in use and the ratio of beds in use to authorized beds by health region.

Table 7
Comparison Between Authorized Beds and Beds in Use
(1990)

Health Region	Authorized beds: Public	Beds in Use: Public	Ratio of Authorized beds to beds in use: Public	Authorized beds: Private	Beds in Use: Private	Ratio of Authorized beds to beds in use: Private
Arecibo	556	494	0.89	377	346	0.92
Bayamon	415	388	0.93	639	606	0.95
Caguas	568	366	0.64	844	671	0.80
Mayagüez	763	588	0.77	621	360	0.58
Ponce	782	702	0.90	917	702	0.77
Metro	1,270	1,044	0.82	2,380	1,935	0.81
Puerto Rico	4,354	3,582	0.82	5,778	4,843	0.84

Source: Puerto Rico Department of Health, Health Facilities Report

Table 7 indicates that the public and the private sector are using approximately 82 percent and 84 percent, respectively, of total authorized beds. The largest slack in the public sector seems to be in the Caguas and Mayaguez Health Regions. In the private sector the Mayaguez Health Region has the lowest ratio of authorized beds to beds in use.

I.F Utilization of Health Services: Inpatient Care

In 1990 a total utilization of 1,983,252 patient days was reported. The private sector accounted for 1,162,751 patient days or 59 percent of the total. In terms of hospital admissions, a total of 402,276 were registered in the same year. This represented an average length of stay of 4.73 days, which is 67 percent of the average length of stay (7.1) in the

United States. The differences in average length of stay between Puerto Rico and the United States are quite interesting given that both have an almost identical rate of admissions per 1,000. In 1990 the rate of admissions per 1,000 for Puerto Rico and the United States was 124.77 and 124.45, respectively. The result of a longer average length of stay in the United States represents a rate of patient days per 1,000 of 902.23 compared to Puerto Rico's 606.10 per 1,000.

The difference between Puerto Rico and the mainland United States regarding a lower average length of stay in Puerto Rico is attributed mainly to the financing structure of hospital inpatient care. While in the United States those hospitals not operating in managed care arrangements are paid on a fee-for-service basis, hospitals in Puerto Rico are paid a per diem rate which is significantly lower than hospital charges. Hospitals thus have no incentive to extend length of stay because it only adds to their costs. In addition, insurance companies in Puerto Rico are very aggressive in monitoring utilization, to the point where they employ benchmark lengths of stay to pre-establish how many days a physician should keep a patient admitted. Also, the legislation that created Blue Cross of Puerto Rico in 1942 establishes that Blue Cross shall not reimburse any provider at a level higher than the lowest rate available. This was designed to keep Blue Cross reimbursement at cost levels. Since cost-shifting is obviously illegal, and with Medicare PPS/DRG, almost impossible to do, hospitals are heavily pressured to keep length of stay as low as possible.

Table 8
Utilization Data in General Hospitals by Service Sector
Puerto Rico and United States
1989-90

UTILIZATION DATA	Puerto Rico			United States
	Public	Private	Total	Total
Admissions per 1,000	54.78	84.37	124.77	124.49
Patient days per 1,000	279.65	396.3	606.1	902.23
Average Length of Stay	5.18	4.45	4.73	7.1

Source: Puerto Rico Department of Health & National Center of Health Statistics Data for Puerto Rico is 1990 and for the U.S. is 1989.

As Table 8 shows, the public and the private sectors in Puerto Rico are significantly different in terms of inpatient service utilization. The hospital admission rate in the public sector was 54.78 per 1,000. The private sector registered a rate of 84.37 per 1,000. Patient

days followed the same pattern. The public and the private sectors accounted for 279.65 and 396.30 patient days per 1,000, respectively. However, when the average length of stay is compared, the public sector accounted for 0.73 days more per stay than the private sector. Average length of stay was 5.18 in the public sector and 4.45 in the private sector. This difference in average length of stay may suggest differences in case mix as Progress Report 1 presented. In that report we showed that the DRG case mix index for public hospitals over 250 beds was 1.35 compared to 1.25 for hospitals of the same size in the private sector.

I.G Discussion and Comments

The fact that the private sector in Puerto Rico is providing a larger quantity of health services can be explained by a combination of factors. The regionalized organization of the public system, which provides for at least one primary care center in each of the Island's 78 municipalities, may reflect a more efficient use of resources. Physicians employed in public primary care centers do not have admitting privileges to public hospitals, and thus do not have the incentive to refer patients for inpatient or specialized ambulatory care. Also, since these primary care centers have ancillary and support services available, they may resolve problems in an ambulatory scenario that physicians in the private sector, due to office practice limitations, may require more hospitalizations to resolve. In general, physicians in these centers practice community-based primary care and do not practice in hospitals. Many are general practitioners who don't and cannot obtain admitting privileges to hospitals, because these require certified specialist training. Alternatively, in 1986 Muñoz found that persons served by the public system waited at least 9 days before contacting a health care provider, compared to 5 days by those who used the private sector. This waiting period was directly related to the expected waiting time at the centers and the traveling time to them.

Financial incentives in the private sector may also explain the described pattern of health services utilization in Puerto Rico. Most of the persons utilizing services from this sector have health insurance. The effect of health insurance, mainly through reductions in the price consumers pay for health services, interacting with other characteristics of the market, such as an increase in the supply of physicians, could be providing all the necessary incentives to over-utilize health care services in this sector. Also, the freedom of choice feature and the lack of gatekeeper arrangements in most provider and insurance systems, may increase utilization of both outpatient as well as inpatient services.

A third factor that may be impinging directly in this pattern is the distribution of physicians practicing in the public and the private sector. According to the last registry of physi-

cians in Puerto Rico most of the general practitioners work for the public sector. However, 60 percent of the physicians in the primary care specialties are practicing in the private sector. This disproportional distribution of physicians grows larger when other specialties and subspecialties are considered. The fact that more physician specialists are working in the private sector may represent a barrier to specialty services for the population served in the public sector. This distribution of physician specialties, may also explain the utilization patterns presented in the previous sections.

Most physicians in the public system are employed on a salary basis and thus have no financial incentive to utilize services inappropriately. One question asked repeatedly is what proportion of physicians work both in the private and public health care sectors, and what effect does this have on drawing patients from one sector to another. The latter is frequently asked, for example, in reference to municipal primary care centers that receive U.S. Public Health Service Section 329 or 330 grants. These centers become more attractive to patients who have private insurance, who in turn, may be channeled to private office based practice by physicians who work in the federally-funded primary care centers.

The U.S. Public Health Service provides funding for 22 public primary care centers in Puerto Rico. Twenty of these centers are organized as community health centers (CHC's) and are funded by Section 330 of the U.S. Public Health Service Act. The two remaining centers are organized as migrant health centers (MHC's). This program was originally created under sponsorship of the Office of Economic Opportunity (OEO) during the early 1960's and was later transferred to the Department of Health, Education, and Welfare, which subsequently became the Department of Health and Human Services (DHHS). A major feature of this program is that funding originally flowed directly from OEO to the community serving as grantee. While under the U.S.P.H.S. this continues, there appears to be greater involvement of local and state health departments in the process. These 329/330 grants also require a majority of community representation on their governing boards; an attempt to make the centers response to the specific needs of the communities they serve.

Another factor that may help explain the greater amount of outpatient visits in the private sector is the amount of primary care being provided by specialists in the private sector. Since this sector is not organized by levels of care, and physicians are paid a pre-established discounted fee per visit, they are able to provide primary care, and label it as specialized acute care, thus avoiding the reluctance of insurers to pay for preventive care.

A reduction in the official estimate of the proportion of the population that is medically indigent, from a high of 68 percent in 1967 to 50 percent today, is the result of the finding that

50 percent of the population has private health insurance. Hence it has been argued that the remaining 50 percent is medically indigent. However, as reported in Figure 4 of this report, 11 percent of health care expenditures come from out-of-pocket sources. While it is conceivable that people with private health insurance also pay out-of-pocket for a portion of their health care, it is also possible that persons classified as medically indigent may, in fact, allocate part of their limited resources to pay for health care in the private sector. This may also help explain why the public sector accounts for only 35 percent of outpatient visits.

Finally, as people reach age 65 and over, and become eligible for Medicare, it becomes evident in Puerto Rico, that much of the care that is required by this population, and which requires coordination among different providers, is currently available to a much greater extent in the private sector. Therefore, the population in this age group is greatly skewed toward the private sector, as shown in Figure 2.

All of the previous discussions represent alternative explanations for the difference in utilization patterns of outpatient and inpatient services in the public and private health sectors in Puerto Rico. The fact that both systems are so different in their organization and operation, requires that these be studied further before reaching major conclusions on the potential effects of the differences in physician supply, outpatient visits, and hospital utilization. There are, however, clear indications that the presence of different incentives, as well as different structural arrangements, may have an effect on use patterns, and that lower utilization patterns and less resource availability, for example, physician supply, may not necessarily indicate less effectiveness or lower quality. These are definitely relevant issues that must be studied further given the current reform initiatives in the United States and Puerto Rico. Questions such as, does regionalization reduce the need for increased physician supply and specialty physicians; do primary care centers reduce the need for hospitalizations; do employed physicians face different incentives than fee-for-service medical practice?

II. Expenditures in Health Services in Puerto Rico

In order to analyze health care expenditures, it is necessary to understand the financial structure of the Puerto Rico health care system. In this section we construct, for the first time in Puerto Rico, a National Health Account Matrix. This matrix allows us to compare the financial structure of the health care system of Puerto Rico with that of the United States, and serves as a baseline for understanding how health care reform might impact Puerto Rico households and businesses. Current attempts to reform the Puerto Rico health system, as well as the attempts to include Puerto Rico within the purview of federal health care reform,

requires that these analyses be conducted. Also, the effects of reform are certain to change the structure and operation of the local health system, and the effect of these changes over time on the variables examined in this matrix will be of great importance to assess the eventual impact of local and federal health care reforms.

The three main sources of health care financing in Puerto Rico are the private health insurance system, the State Government and the Federal Government. Although two of these sources can be classified as public, the state Government funds the public sector while Medicare funds primarily the private sector. In Puerto Rico, total health expenditures in 1990 amounted to \$2.5 billion (see Table 9), which represented 10.9 percent of the Gross Domestic Product. The major flow of sources of funds were: private insurance, \$1.1 billion, federal government \$606 million, state government \$482 million and out of pocket expenses \$261 million. The three main components of expenditures are: (1) physician services, which accounted for 32.4 percent of total expenditures, (2) hospital services responsible for 27 percent, and (3) drugs responsible for 28 percent of total expenditures.

The Medicare Program in Puerto Rico financed, in 1990 approximately \$460 million of the total health care expenditures (HCFA Puerto Rico Office, 1990). The total federal share is 24.2 percent compared to 19.2 percent for the state and local share. Private insurance financed 46.2 percent of total expenditures, which represented the most important source of funds.

Table 9
Puerto Rico Health Expenditures, by Source of Funds and Type of Expenditures
Puerto Rico, 1990
(Dollars)

Type of Expenditure	Total Government + Private	Sources					
		PRIVATE			GOVERNMENT		
		Consumer		Private Insurance	Total	Federal	State and Local
		Total	% Out of Pocket				
National Health Expenditures	2,507,581,788	1,418,721,794	260,898,000	1,157,823,794	1,088,859,974	606,836,071	482,023,903
Health Services & Supplies	2,498,568,561	1,418,721,794	260,898,000	1,157,823,794	1,079,846,767	604,622,864	475,223,903
Personal Health Services	2,362,615,935	1,418,721,794	260,898,000	1,157,823,794	943,894,141	468,670,238	475,223,903
Hospital Services	672,267,208	114,227,794	-	114,227,794	558,039,414	212,786,092	345,253,322
Physician Services	814,142,839	531,812,000	106,362,000	425,450,000	282,330,839	222,761,143	59,569,696
Dental Services	85,587,190	84,382,000	16,876,000	67,506,000	1,205,190	1,205,190	-
Other Professional Services	62,383,400	-	-	-	62,383,400	4,079,837	58,303,563
Drug/Medical/N.D.	702,672,062	688,300,000	137,660,000	550,640,000	14,572,062	2,474,740	12,097,322
Nursing Home Care	2,367,393	-	-	-	2,367,393	2,367,393	-
Home Health Care	22,995,843	-	-	-	22,995,843	22,995,843	-
Gov. Public Health Activity	135,952,626	-	-	-	135,952,626	135,952,626	-
Construction	9,013,207	-	-	-	9,013,207	2,213,207	6,800,000

Source: Balances and Assignments of Federal Contributions for Fiscal Year 1990-91, Budget Report of Primary Care Centers Receiving Federal Funds, Cost Report of the Department of Health, Department of Labor and Human Resources, Home Health Agency Cost Report Period 1989-90, Report of the Office of Budget and Management.

Table 10 provides a comparison between the United States and Puerto Rico by type of health expenditure per capita. The 1990 per capita expenditure for health services and supplies in Puerto Rico was \$708 compared to the United States which accounted for an expenditure of \$2,587. Expenditures in hospital services in Puerto Rico amounted to \$190.53 per capita in contrast to \$1029 for the U.S. population.

Table 10
Per capita Health Expenditures for United States and Puerto Rico
(1990)

Type of Expenditure	United States	Puerto Rico	P.R. as a % of U.S.
National Health Expenditures	2678.62	710.67	26.53
Health Services & Supplies	2586.95	708.12	27.37
Personal Health Services	2353.34	669.59	28.45
Hospital Services	1029.31	190.53	18.51
Physicians Services	505.41	230.79	45.66
Dental Services	136.71	24.26	17.75
Other Professional Services	127.06	17.68	13.92
Nursing Home Care	1552.50	5.42	0.35
Home Health Care	201.74	52.67	26.11
Drug/Medical/N.D.	219.53	199.24	90.76
Gov. Public Health Activities	77.60	38.54	49.66
Construction	41.82	2.55	6.10

Source: Balances and Assignments of Federal Contributions for Fiscal Year 1990-91, Budget Report of Primary Care Centers Receiving Federal Funds, Cost Report of the Department of Health, Department of Labor and Human Resources, Home Health Agency Cost Report Period 1989-90, Report of the Office of Budget and Management.

Expenditures for physicians services represented the most important type of expenditure per capita in Puerto Rico while in the United States physicians services represented the third most important type of expenditure behind hospital services and nursing home care. This last category is where Puerto Ricans allocate the least resources per capita. Whereas in the United States the Medicaid Program has become the most important source of funding for the provision of nursing home care, the government of Puerto Rico does not allocate Medicaid funds to finance this type of care. This may be due to several factors. Puerto Rico's fixed participation in the Medicaid Program has only recently been increased from \$79 million to \$112 million per year, which represents less than 20 percent of total expenditures for public health care to the medically indigent population. This amount of funding is insuffi-

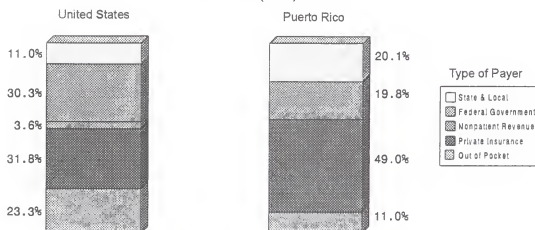
cient to fund nursing home care, considering the fact that the Commonwealth government must allocate at least 80 percent of total expenditures to provide physician and hospital care to the medically indigent population. Therefore, the cap on Medicaid funding may explain in part the low amount of resources spent on nursing home care.

Most of the post-hospital care or long-term care in Puerto Rico is provided through home health services. Expenditures per capita for home health services in Puerto Rico are 10 times more than for nursing home care. Again, the issue of funding may explain this behavior. As people reach age 65 and older, and become eligible for Medicare, they use more home health services, which are available to a much larger extent in the private sector, even more so than nursing home care. However, cultural differences, mainly the extended family, provide an alternative explanation for this behavior. Even after many years of exposure to nursing home care, these have not become a significant part of the health care system in Puerto Rico. Home health services, in turn have become quite prevalent.

Another important finding is the fact that expenditures per capita for medicines in Puerto Rico are similar to that of the United States. In Puerto Rico, approximately \$200 per capita were spent in medicines compared to \$219 in the United States. There is a plausible explanation for this similarity. The health services utilization data presented in this report along with related financial information suggests that physicians fees and hospital operating costs may be lower than in the United States. However, the price of medicines in Puerto Rico is not determined in the local market and Puerto Ricans may be facing similar prices as in the United States. This could explain the disproportionate allocation of funds to pay for medicines.

Figure 4 depicts the distribution of expenditures by payer in Puerto Rico, as well as in the United States for the year 1990. There are significant differences between Puerto Rico and the United States in the importance of type of payer. In Puerto Rico private insurance financed 49 percent of health expenditures, while in the United States this payer provided 32 percent of the funds. The government of Puerto Rico funded 20.1 percent of all expenditures compared to state and local funding of 11 percent in the United States. In the United States the federal government pays for 30.3 percent of health services utilization while in Puerto Rico the importance of the federal government, although significant, decreases to 20 percent. Out of pocket funds finance 11 percent of health expenditures in Puerto Rico, whereas, this percentage increases for the United States to 23.3 percent. This difference is due to the extensive nature of public financing in Puerto Rico.

Figure 4
Percentage Distribution of Expenditures for
Personal Health Care, by Type of Payer
 United States and Puerto Rico
 (1990)



Source: Balances and Assignments of Federal Contributions for Fiscal Year 1990-91, Budget Report of Primary Care Centers Receiving Federal Funds, Cost Report of the Department of Health, Department of Labor and Human Resources, Home Health Agency Cost Report Period 1989-90, Report of the Office of Budget and Management

This percentage distribution of expenditures for personal health care by type of payer reflects the health utilization patterns that we have described earlier in this report. The importance of the private sector in Puerto Rico is substantiated by the fact that private health insurance represents the most important payer of personal health services. The role of the public sector is further corroborated by the contribution of the Puerto Rican government to finance personal health services for the medically indigent population. The reader must keep in mind that the distribution of expenditures for Puerto Rico is actually for two distinct health sectors; that while the 20.1 percent of state and local funds are spent in the public sector, only a small percentage of the 19.8 percent of federal funds is spent in this sector. Medicare represents the larger portion of these funds, and they are spent mostly in the private sector.

III. Health Spending Analysis³

In this section we provide an analysis of the health sector in Puerto Rico in relation to the rest of the economy. The trends in health services expenditures for Puerto Rico and the United States are also presented for comparison purposes.

³ This analysis is based in an article by George Schieber, Jean-Pierre Poulhier and Leslie Greenwald; "U.S. health expenditure performance: An international Comparison", Health Care Financing Review, Summer 1992, Vol.13 No.4 pp.1-89.

The relationship between the health expenditure levels and growth in the overall economy as measured by the Gross Domestic Product (GDP) is presented. The measure of the health sector performance as a percentage of each country's total output, concerning the health sector, is the GDP-ratio. This measure, allows us to make comparisons across countries, including Puerto Rico, at a point in time and over time. The GDP-ratio is the most widely used measure for cross-sectional country comparisons. Since the economy grows rapidly we can expect the purchase of more health care services, and this generates an increase in health spending.

Tables 11 and 12, present total health care expenditures as a percentage of GDP and public health expenditures as a percentage of total health expenditures for the 23 Organization for Economic Cooperation and Development (OECD) countries, United States, and Puerto Rico. Tables 13 and 14 present the nominal health care expenditures and the per capita GDP adjusted for the population growth, to obtain the per capita expenditures and compute the elasticity shown in table 15 for the five most important countries of the OECD countries, United States, and Puerto Rico. Table 16 and Table 17 present the percentage change in the per capita health spending and the per capita GDP in United States and Puerto Rico in the 1980-90 period.

The last part of this analysis presents the per capita health spending as a function of the per capita GDP. This analysis is presented for Puerto Rico, the United States and other OECD countries for 1980, 1985 and 1990. The results of the cross-sectional regression analysis show a strong relationship between health spending and the Gross Domestic Product (GDP) for these countries including Puerto Rico.

Health Spending Performance

Table 11 shows total health expenditures as a percent of the gross domestic product (GDP) for Puerto Rico, United States, and the countries of the OECD for the 1980-90 period. In 1980, the share of health in the GDP averaged about 7.00 percent for the OECD countries.

Turkey and Sweden showed the lowest and highest percentages at 4.00 and 9.40, respectively. The United States and Ireland presented the second highest percentages with 9.20 percent. Puerto Rico's ratio was 7.00 percent similar to Australia, Canada, Belgium and Switzerland.

In 1990, the OECD countries average increased in 0.80 percent, but the range widened from 4.00 for Turkey to 12.50 for Puerto Rico. In comparison, United States showed

12.10 percent. The dispersion in the health expenditures to GDP-ratio measured by the coefficient of variation⁴ has been relatively stable between 1980 to 1990 at 0.18 and 0.21, respectively. The fact that both these measures are well less than 1, implies that the total health expenditures as a percent of the GDP by each country is relatively close to the mean of the health to GDP ratio.

Table 11
Total Health Expenditures as a Percent of Gross Domestic Product
for 23 Organization for Economic Cooperation and Development (OECD)
Countries, United States, and Puerto Rico
(1980 - 1990)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Australia	7.3	7.5	7.7	7.7	7.7	7.7	8.0	7.8	7.7	7.7	8.2
Austria	7.9	8.2	8.0	8.0	7.9	8.1	8.3	8.4	8.4	8.4	8.4
Belgium	6.7	7.3	7.4	7.5	7.4	7.4	7.4	7.5	7.5	7.4	7.5
Canada	7.4	7.5	8.4	8.6	8.5	8.5	8.8	8.8	8.7	8.8	9.3
Denmark	6.8	6.8	6.8	6.6	6.4	6.3	6.0	6.3	6.5	6.4	6.3
Finland	6.5	6.6	6.7	6.9	6.9	7.2	7.4	7.4	7.2	7.2	7.8
France	7.6	7.9	8.0	8.2	8.5	8.5	8.5	8.5	8.6	8.7	8.8
Germany	8.4	8.7	8.6	8.5	8.7	8.7	8.7	8.7	8.9	8.2	8.1
Greece	4.3	4.5	4.4	4.6	4.5	4.9	5.4	5.2	5.0	5.3	5.5
Iceland	6.5	6.6	6.9	7.6	7.0	7.1	7.8	7.9	8.5	8.7	8.6
Ireland	9.2	8.8	8.4	8.5	8.2	8.2	8.1	7.9	7.3	6.9	7.0
Italy	6.9	6.7	6.9	7.0	6.8	7.0	6.9	7.4	7.6	7.6	7.7
Japan	6.8	6.6	6.8	6.8	6.6	6.5	6.6	6.7	6.6	6.6	6.5
Luxembourg	6.8	7.1	6.8	6.8	6.6	6.8	6.7	7.3	7.2	6.6	7.2
Netherlands	8.0	8.2	8.4	8.4	8.1	6.0	8.1	8.3	8.2	8.1	6.2
New Zealand	7.2	6.9	6.7	6.6	6.2	6.6	6.8	7.3	7.3	7.3	7.4
Norway	6.6	6.6	6.8	6.8	6.5	6.8	7.1	7.4	7.7	7.4	7.4
Portugal	5.8	6.4	6.8	6.2	6.8	7.0	6.6	6.9	7.1	7.2	6.7
Spain	5.8	5.8	5.8	6.0	5.8	5.7	5.6	5.7	6.0	6.3	6.6
Sweden	9.4	9.5	9.7	9.6	9.4	8.8	8.6	8.6	8.5	8.6	8.6
Switzerland	7.3	7.3	7.5	7.8	7.8	7.6	7.6	7.7	7.8	7.4	7.7
Turkey	4.0	4.4	3.6	3.8	3.8	2.8	3.5	3.6	3.8	3.9	4.0
United Kingdom	5.8	6.0	5.9	6.1	6.1	6.0	6.0	6.1	6.1	6.1	6.2
United States	9.2	9.6	10.4	10.5	10.3	10.5	10.7	10.9	11.1	11.5	12.1
Puerto Rico	7.0	8.0	8.0	9.2	10.0	11.0	11.0	11.0	12.0	12.0	12.5

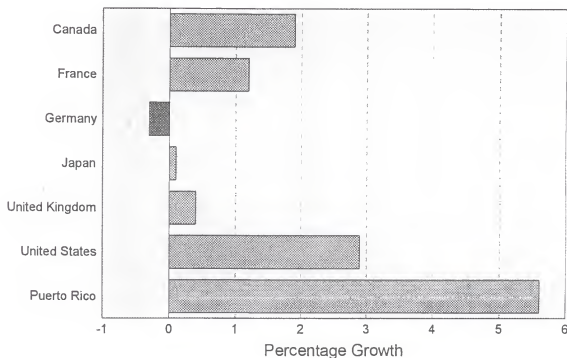
Source: U.S. Health Expenditures performance: An International comparison and data update, Product and Income Report (1990), Puerto Rico Planning Board Consolidated Budget of Department of Health of P.R. (1980-1990), Medicare Health Expenditures, HCFA

Growth in the health expenditures to GDP ratio over the 1980 to 1990 time period implies that the health sector is growing faster than the overall economy. Puerto Rico exhibited the largest total growth in the health expenditures to GDP-ratio. Puerto Rico increased 5.60 percentage points since 1980, while the United States increased 2.9 percentage points,

⁴ The coefficient of variation is the standard deviation expressed as a percent of the mean.

and OECD average increased 0.80 percentage points (see Figure 5). Iceland showed the third highest increase with 2.10 percentage points. Figure 5 also presents a negative total growth of -0.30 percentage points for Germany and a low growth for Japan at 0.10 percentage points. The United States aside from Puerto Rico exhibits the largest total growth in comparison with the OECD countries.

Figure 5
Percentage Point Growth in Health Expenditures as a Percent of GDP
for Five Countries of the OECD, United States, and Puerto Rico
 (1980 - 1990)



Source: U.S. Health Expenditures performance: An International comparison and data update, Product and Income Report (1990), Puerto Rico Planning Board Consolidated Budget of Department of Health of P.R. (1980-1990), Medicare Health Expenditures, HCFA

Table 13 presents public health expenditures as a percentage of the total health spending for 1980-90. In 1980, public spending ranged from 27 percent in Turkey to 98 percent in Norway with an average of 76 percent for the OECD countries. The second lowest was the United States with a ratio of 42 percent. Puerto Rico showed 39 percent in 1980. In 1990, Puerto Rico showed a ratio of 43 percent. Puerto Rico exhibited the lowest percent in 1982 and 1983 (38 percent), and the largest percent in 1984, 1986, 1987, and 1990 at 43 percent. In 1990, the average ratio for the OECD countries was 74 percent; overall the ratio ranged from 42 percent in United States to 95 percent in Norway. The United States, again, showed the second lowest ratio; and it is the only country aside from Puerto Rico and Turkey with a

ratio below 60 percent. The dispersion in the public share as measured by the coefficient of variation has been relatively stable, 0.23 in 1980 and 0.22 in 1990.

Table 12
Public health expenditures as a percent of total health expenditures for
23 Organization for Economic Cooperation and Development (OECD)
countries, United States, and Puerto Rico.
(1980-1990)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Australia	63	62	61	65	72	72	71	70	69	69	68
Austria	66	70	58	67	66	67	68	67	66	67	67
Belgium	93	80	86	93	85	82	81	93	83	93	83
Canada	79	79	79	79	75	75	79	74	79	73	73
Denmark	88	68	88	88	85	88	85	84	84	93	83
Finland	79	60	50	79	79	79	79	60	79	80	91
France	79	79	79	74	77	77	79	79	75	79	74
Germany	79	79	79	79	79	74	79	74	79	79	73
Greece	92	88	91	88	90	91	91	80	83	79	76
Iceland	88	66	86	80	97	91	97	87	87	87	67
Ireland	92	93	82	80	79	77	79	79	79	73	75
Italy	81	79	79	79	79	77	79	79	78	77	76
Japan	71	79	79	72	72	73	73	73	72	71	72
Luxembourg	93	93	93	86	85	85	85	92	92	91	91
Netherlands	79	79	79	79	79	79	72	79	73	72	71
New Zealand	88	68	84	86	86	85	86	85	68	92	82
Norway	68	68	67	68	97	90	86	68	96	50	95
Portugal	72	71	62	50	55	50	58	88	68	68	62
Spain	80	79	79	88	82	91	79	79	79	74	78
Sweden	93	92	92	92	92	63	90	60	66	66	90
Switzerland	68	68	68	86	69	69	69	67	68	68	68
Turkey	27	-	-	-	41	50	42	40	38	37	36
United Kingdom	90	89	88	88	87	87	86	86	85	85	84
United States	42	42	41	41	41	41	42	42	42	42	42
Puerto Rico	39	40	38	38	43	42	43	43	42	42	43

Source: U.S. Health Expenditures performance: An International comparison and data update, Product and Income Report (1990), Puerto Rico Planning Board Consolidated Budget of Department of Health of P.R. (1980-1990), Medicare Health Expenditures, HCFA.

Table 13 shows the per capita health spending for the OECD countries, United States, and Puerto Rico from 1980-90. In terms of absolute level of 1980 per capita health spending, the average of OECD health spending was \$604. Turkey shows the lowest per capita spending, \$67. Puerto Rico health spending was \$260 in comparison with the highest per capita health spending of \$1,064 for the United States. In 1990, the average of OECD countries increased to \$1204, ranging from \$132 in Turkey and \$2,566 in the United States. The per capita health spending for the OECD countries until 1990 has shown an approximately annual rate of 7.10 percent increase.

Table 13
Per capita health spending for 23 Organization for Economic
Cooperation and Development (OECD) countries,
United States, and Puerto Rico.
 (1980 - 1990)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Australia	\$696	\$791	\$838	\$892	\$948	\$1,014	\$1,088	\$1,127	\$1,178	\$1,225	\$1,304
Austria	716	813	853	901	938	1,005	1,062	1,123	1,205	1,286	1,393
Belgium	607	721	786	831	866	898	928	986	1,067	1,130	1,227
Canada	773	889	1,003	1,091	1,175	1,264	1,374	1,449	1,531	1,627	1,770
Denmark	618	673	738	754	791	834	841	914	981	1,015	1,053
Finland	539	611	683	734	780	869	920	988	1,048	1,142	1,284
France	736	845	925	983	1,073	1,111	1,159	1,214	1,309	1,422	1,532
Germany	856	967	1,007	1,050	1,148	1,208	1,258	1,305	1,432	1,403	1,486
Greece	192	215	225	243	253	286	326	324	335	377	402
Iceland	611	707	789	845	834	884	1,065	1,196	1,298	1,340	1,358
Ireland	477	509	520	542	562	595	598	625	629	652	748
Italy	600	644	706	746	770	833	864	970	1,070	1,152	1,236
Japan	540	615	689	734	762	804	848	926	998	1,087	1,171
Luxembourg	657	738	774	808	871	938	982	1,130	1,211	1,259	1,393
Netherlands	742	821	876	915	938	968	1,024	1,078	1,121	1,187	1,286
New Zealand	568	622	638	658	673	741	788	869	887	928	976
Norway	573	624	682	743	775	826	960	1,052	1,115	1,120	1,184
Portugal	265	299	339	339	347	405	397	441	498	550	555
Spain	342	382	419	447	452	464	482	531	605	686	777
Sweden	897	994	1,082	1,128	1,187	1,175	1,184	1,258	1,314	1,393	1,451
Switzerland	886	982	1,054	1,146	1,201	1,253	1,284	1,351	1,448	1,542	1,633
Turkey	67	83	73	78	80	67	91	101	111	118	132
United Kingdom	474	536	573	636	660	695	741	798	853	914	972
United States	1,064	1,222	1,359	1,480	1,592	1,711	1,823	1,961	2,146	2,346	2,566
Puerto Rico	260	315	328	378	455	476	527	566	619	682	759

Source: U.S. Health Expenditures performance: An International comparison and data update, Product and Income Report (1990), Puerto Rico Planning Board Consolidated Budget of Department of Health of P.R. (1980-1990), Medicare Health Expenditures, HCFA.

There is a well-established relationship between health spending and gross domestic product (GDP). The richer countries tend to spend more on health care than poor countries (Schieber, Poullier and Greenwald, 1991). Table 14 shows the per capita GDP for the OECD countries, United States, and Puerto Rico in 1980-90. In 1980, the range was from \$1,673 in Turkey to \$12,197 in Switzerland. The United States shows the second largest GDP per capita, \$11,890. Puerto Rico presents a GDP per capita of \$3,475. In 1990, United States exhibits the highest per capita GDP of \$21,933 while Puerto Rico showed \$5,933, and Turkey reflected the lowest at \$3,316. During this decade, GDP per capita grew at an annual rate of approximately 6.40 percent for all countries. The dispersion in the distribution of per capita GDP was lower than the distribution of per capita health spending with a coefficient of variation of 0.31 in both 1980 and 1990.

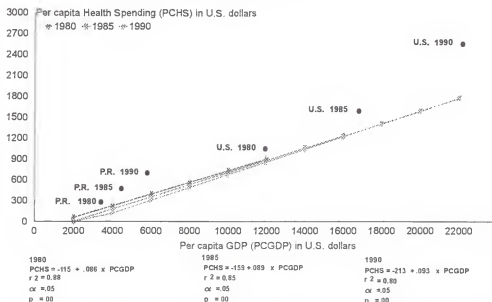
Table 14
Per capita Gross Domestic Product (GDP) for 23 Organization for Economic Cooperation and Development (OECD) countries, United States, and Puerto Rico
 (1980 - 1990)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Australia	\$9,538	\$10,596	\$10,868	\$11,599	\$12,383	\$13,110	\$13,653	\$14,496	\$15,335	\$15,896	\$15,983
Austria	9,081	9,893	10,629	11,241	11,796	12,407	12,807	13,393	14,357	15,402	16,620
Belgium	9,075	9,832	10,621	11,022	11,658	12,067	12,502	13,148	14,233	15,233	16,363
Canada	10,479	11,794	11,968	12,717	13,902	14,832	15,560	16,529	17,658	18,552	19,063
Denmark	9,083	9,866	10,827	11,476	12,425	13,290	14,055	14,507	15,061	15,801	16,756
Finland	8,342	9,232	10,120	10,712	11,381	12,031	12,492	13,344	14,492	15,815	16,451
France	9,742	10,737	11,616	12,060	12,621	13,147	13,662	14,290	15,276	16,390	17,364
Germany	10,174	11,109	11,765	12,348	13,250	13,896	14,462	15,068	16,089	17,029	18,317
Greece	4,426	4,804	5,103	5,265	5,577	5,883	6,087	6,216	6,670	7,145	7,349
Iceland	9,447	10,640	11,388	11,168	11,878	12,512	13,628	16,081	15,218	15,412	16,851
Ireland	5,193	5,788	6,197	6,389	6,837	7,283	7,402	7,945	8,564	9,473	10,630
Italy	8,743	9,607	10,225	10,636	11,279	11,856	12,447	13,197	14,161	15,126	16,021
Japan	8,409	9,361	10,200	10,793	11,602	12,428	12,902	13,832	15,083	16,371	17,994
Luxembourg	9,610	10,404	11,202	11,926	13,117	13,826	14,677	15,440	16,714	18,294	19,340
Netherlands	9,224	9,987	10,434	10,869	11,562	12,125	12,570	12,979	13,666	14,683	15,747
New Zealand	7,848	8,968	9,491	9,971	10,833	11,177	11,572	11,964	12,169	12,729	13,258
Norway	8,621	9,492	10,093	10,886	11,891	12,813	13,609	14,206	14,526	15,085	15,919
Portugal	4,503	4,583	5,365	5,494	5,540	5,806	6,017	6,526	7,013	7,665	8,345
Spain	6,125	6,624	7,097	7,430	7,801	8,166	8,580	9,309	10,090	10,952	11,792
Sweden	9,615	10,416	11,194	11,788	12,669	13,293	13,854	14,609	15,360	16,224	16,813
Switzerland	12,197	13,462	14,131	14,704	15,467	16,387	16,905	17,650	18,625	19,864	21,280
Turkey	1,673	1,869	2,043	2,143	2,270	2,391	2,590	2,810	2,948	3,018	3,316
United Kingdom	8,212	8,863	9,679	10,348	10,825	11,647	12,266	13,174	14,094	15,103	15,682
United States	11,890	13,169	13,545	14,502	15,937	16,879	17,668	18,611	19,894	21,079	21,933
Puerto Rico	3,475	3,790	3,901	3,992	4,269	4,461	4,707	4,981	5,320	5,645	5,993

Source: U.S. Health Expenditures performance: An International comparison and data update Product and Income Report (1990), Puerto Rico Planning Board Consolidated Budget of Department of Health of P.R. (1980-1990), Medicare Health Expenditures, HCFA

Figure 6 shows the relationship between the per capita health spending and the per capita GDP for Puerto Rico, United States and 23 OECD countries. This relationship is shown for each of the years 1980, 1985, and 1990. A cross-sectional regression analysis reflects a strong relationship between the health spending per capita and the GDP per capita in all the countries, including Puerto Rico. It is interesting to observe that the United States per capita health expenditures exceeded the predicted amount of the average relationship of all countries. The United States per capita health expenditures were \$150 in 1980, \$370 in 1985, and \$731 in 1990 over the regression lines of these years. Similarly to United States, Puerto Rico is over the predicted trend line. In 1980, Puerto Rico per capita expenditures were \$69 above the trend line, while in 1985, and 1990 Puerto Rico was \$245 and \$403 above the trend line, respectively. The fact that per capita expenditures exceed by increasing amounts the regression line means that in Puerto Rico and the United States health expenditures grew faster than the GDP. We confirm this finding with the elasticity analysis shown below.

Figure 6
Per capita Health Spending and Per capita GDP for Puerto Rico, the
United States and other Organizations for Economic Cooperation and
Development Countries (OECD)
(1980, 1985, 1990)



Source: U.S. Health Expenditures performance: An International comparison and data update, Product and Income Report (1990), Puerto Rico Planning Board Consolidated Budget of Department of Health of P.R. (1980-1990), Medicare Health Expenditures, HCFA.

In conclusion, United States and Puerto Rico health care spending as a proportion of GDP are the highest in the world, and also the fastest growing. Although, Puerto Rico had lower absolute health spending than the United States, it exhibited a larger growth in per capita health expenditure in comparison with the other countries.

Table 15
Nominal Elasticity of Per capita Health Spending
Relative to Per capita Gross Domestic Product (GDP)
(Puerto Rico, United States and other countries)

Country	Nominal		
	1980-85	1985-90	1980-90
Canada	1.40	1.16	1.26
France	1.23	1.14	1.18
Germany	1.09	0.70	0.95
Japan	1.01	1.00	1.00
United Kingdom	1.08	1.06	1.04
United States	1.34	1.53	1.36
Puerto Rico	2.69	1.52	1.94

Source: U.S. Health Expenditures performance: An International comparison and data update, Product and Income Report (1990), Puerto Rico Planning Board Consolidated Budget of Department of Health of P.R. (1980-1990), Medicare Health Expenditures, HCFA.

Table 15 contains the nominal elasticities of per capita health spending in 1980, 1985, and 1990 for Canada, France, Germany, Japan, United Kingdom, United States, and Puerto Rico. The Puerto Rico 1980 to 1990 nominal elasticity of 1.94 exceeded the nominal elasticities of United States (1.36), United Kingdom (1.04), Japan (1.00), Germany (0.95), France (1.18), and Canada (1.26). It is important to observe that in the 1985-90 period, the United States and Puerto Rico showed the largest nominal elasticities, (1.53 and 1.52, respectively) by a wide margin. Perhaps, even more interesting is the 2.69 nominal elasticity for Puerto Rico in the 1980-85 period. In this period the United States exhibited a nominal elasticity of 1.34, while the nominal elasticity for Canada was 1.40. This period was characterized by economic recession in Puerto Rico, as well as in the United States. As a developing economy, Puerto Rico may invest a larger share of its income in health care. In the 1985-90 period the Puerto Rico nominal elasticity decreased (1.59) while in the United States the elasticity increased (1.53). In the 1980-90 period, the Puerto Rico nominal elasticity was higher than the elasticity of United States and the other countries. That means that the health expenditures of Puerto Rico are more sensitive to changes in the GDP than in other countries. This is typical of developing countries, where the health needs of the population tend to be higher, and the fact that per capita health spending has grown faster than per capita GDP, evidences the increase in resources that have to be allocated to finance health care expenditures. Puerto Rico's public sector takes care of the needs of 50 percent of its population.

Table 16
Annual Percentage Change Per capita Health Spending
United States and Puerto Rico
(1980 - 1990)

Year	United States	%	Puerto Rico	%
1980	1064		260	
1981	1222	14.8	315	21.2
1982	1359	11.2	328	4.1
1983	1480	8.9	378	15.2
1984	1592	7.6	455	20.4
1985	1711	7.5	476	4.6
1986	1823	6.5	527	10.7
1987	1961	7.6	566	7.4
1988	2146	9.4	619	9.4
1989	2346	9.3	682	10.2
1990	2566	9.4	759	11.3
1980-90		141.0		192.0

Source: U.S. Health Expenditures performance: An International comparison and data update, Product and Income Report (1990), Puerto Rico Planning Board Consolidated Budget of Department of Health of P.R. (1980-1990), Medicare Health Expenditures, HCFA.

Table 16 presents historical comparison of the per capita health spending between Puerto Rico and the United States. This table reveals that per capita health expenditures in Puerto Rico have increased at a faster pace than in the United States. During the period from 1980 to 1990 per capita health expenditures in Puerto Rico grew 191 percent compared to 141 percent, in the United States.

Table 17 provides the annual growth rates of the GDP per capita in the United States and Puerto Rico. Annual growth rates in Puerto Rico and the United States have averaged, in current dollars at 6.6 percent and 7.5 percent, respectively.

Table 17
Annual Percentage Change Per capita GDP
United States and Puerto Rico
(1980 - 1990)

Year	US GDP Per Capita	%	PR GDP Per Capita	%
1980	11,890		3,475	
1981	13,169	10.8	3,790	9.1
1982	13,545	2.9	3,901	2.9
1983	14,502	7.1	3,972	1.8
1984	15,937	5.9	4,269	7.5
1985	16,879	5.9	4,981	4.5
1986	17,666	4.7	4,707	5.5
1987	18,611	5.9	4,981	5.9
1988	19,894	6.9	5,320	6.8
1989	21,079	6.0	5,645	6.1
1990	21,933	4.1	5,993	6.2
1980-90		84.0		72.0

Source: U.S. Health Expenditures performance: An International comparison and data update, Product and Income Report (1990), Puerto Rico Planning Board Consolidated Budget of Department of Health of P.R. (1980-1990), Medicare Health Expenditures, HCFA

The United States exhibited the highest absolute per capita health spending in 1980 and 1990. In 1980, the health spending per capita of \$1,064 for the United States was 358 percent higher than Puerto Rico, 97 percent higher than Japan, 124 percent higher than the United Kingdom, 45 percent higher than France, 38 percent higher than Canada, and 24 percent higher than Germany. By 1990 United States health spending exceeded that of Puerto Rico by 309 percent, Japan by 119 percent, United Kingdom by 164 percent, France by 64 percent, Canada by 45 percent, and Germany by 73 percent. Therefore, during the 1980-90 period Puerto Rico health spending grew faster than the United States health spend-

ing. In this period the proportional growth of the health spending in Puerto Rico (270 percent) exceeded the proportional growth of the health spending in the United States (241 percent).

Conclusion

1. Over the past ten years, US health spending has increased faster than health spending in OECD countries, but in proportion to the GDP, Puerto Rico health care spending was the highest, by 1990.
2. Puerto Rico showed the highest average growth rate of per capita health spending (11.6 percent). This compares to that of the United States (9.2 percent) for the 1980-90 period.
3. United States presented a higher average growth rate of per capita GDP (6.3 percent) than Puerto Rico (5.6 percent) in the 1980-90 period. Japan exhibited the highest growth rate of per capita GDP (7.9 percent) of OECD countries.
4. The regression analysis indicates a positive and significant statistical relationship between the per capita health spending and the per capita GDP for Puerto Rico, United States, and the OECD countries.

***HEALTH CARE REFORM IN PUERTO RICO:
EVOLUTION AND CRITICAL ISSUES***

FINAL REPORT

GRANT NUMBER: 18-C-90240/2-01

August, 1995

Submitted by:

***INSTITUTO DE ADMINISTRACIÓN Y POLÍTICA
DE SALUD DE PUERTO RICO***



BOARD OF DIRECTORS

President

Enrique Baquero, M.H.S.A.

Vice President

Alberto Varela, M.D.

Secretary- Treasurer

Eduardo Sotomayor, M.H.S.A.

Directors

Salvador Tió, Esq.

Jesús Rodríguez, M.H.S.A.

Mrs. Eugenia Josefina Santiago

Mr. José Mulero

Mr. Cruz Irizarry

Mr. Guillermo Brown, MHSA

José Varela, Esq.

Magaly Maldonado, M.D.

BOARD OF ADVISERS

Members

Margarita Alegría, Ph.D
Carmen Allende de Rivera, Ph.D
William Martínez
José Julián Alvarez
Felipe Benedit
Pedro Borrás, M.D.
Víctor A. Carrán
José Cuevas
Gabriel Dolagaray
Francisco J. Echegaray, M.D.
Miguel Echenique, Ph.D
Luis Izquierdo Mora, M.D.
Jorge Lastra, M.D.
José Madera, M.S.
Celia Molano, MHSA
Rita Osorio, Ph.D.
Saturnino Peña Flores, MHSA
Rafael Ramírez, M.D.
Andrés Rodríguez, CPA
Ruby Rodríguez, MHSA
Luis Salgado
José Serrano Gadea, MHSA
Luis Serrano Vega, MHSA
Erik Suárez, Ph.D.
Miguel Vázquez Deynes

PROJECT STAFF

Principal Investigator

Roberto Ramírez, Ph. D.

Project Director

William Rodríguez González, M.S.

Data Analyst

María E. Velázquez, M.P.H.

Assistant Investigator

Iris Anette Figueroa Rivera

Secretary

María A. Henríquez Montes

Consultant to Project

Allen Dobson, Ph.D.

TABLE OF CONTENTS

	Page
Economic Development and the Rise of the Puerto Rico Public Health Care Sector	2
Demographic and Health Status Trends in Puerto Rico	3
Puerto Rico's Health Care Infrastructure and Utilization	3
Health Care Financing in Puerto Rico	4
Historical Background	5
Legislation Health Care Reform	7
The 1992 Election: The Era of Insurance Driven Reform	9
Selection of the Pilot Areas	11
Relevant Changes as a Result of PRHIA Reform	12
Puerto Rico Health Care Reform	15
Background	15
Insurance Population	15
Reform Legislation	16
Health Care Reform Plan	16
Evaluation Program of Health Care Reform	18
Eligibility and Deductibles	20
Type of Coverage	21
Status of the Health Care Reform	22
Cost Per Patient and Coverage	23
Summary of major principles of Puerto Rico Health Care Reform	24
San Juan Health Care System	29
Model Description	29
Summary of major principles of San Juan Health Care Reform	33
Comparison of the Puerto Rico Health Care Reform Initiative with Seven Selected States	35
Discussion	40
Conclusions	43
Key Policy Issues for Health Care Reform in Puerto Rico	46
Recommendations	50
Appendixes	55

TABLES INDEX

	Page
Table 1 Firms Providing Health Insurance	2
Table 2 Employment, Income and Costs of Insurance Comparison Puerto Rico vs. United States - 1990	2
Table 3 Health Care Resource Comparison: Puerto Rico to United States Total Health, 1991	3
Table 4 Distribution of Government Health Services Expenditures Puerto Rico, 1989-91	4
Table 5 Plan Compliance Evaluation Program Overview	19
Table 6 Deductibles	20
Table 7 Basic and Special Coverage of the Puerto Rico Health Reform	22
Table 8 Health Care Reforms Indicators by Location: The Case of Puerto Rico, San Juan, Florida, Oregon, Minnesota, Vermont, Arizona, Hawaii, and Tennessee	36

FIGURES INDEX

	Page
Figure 1 Puerto Rico Regionalization of Health Services Framework	6
Figure 2 How Services are Received	6
Figure 3 Health Care Reform Plan	17
Figure 4 Neonatal and Postneonatal Mortality by Health Sector Puerto Rico, 1990	42
Figure 5 Puerto Rico Health Care Reform Policy Options 1993	46
Figure 6 Puerto Rico Health Care Reform Through Private Health Insurance	48
Figure 7 Elements of an Information System to Support Health Care Delivery Decisions in the Commonwealth of Puerto Rico	54

PROJECT:

**HEALTH CARE REFORM IN PUERTO RICO:
EVOLUTION AND CRITICAL ISSUES**

GRANT NUMBER: 18-C-90240/2-01

The 1992 gubernatorial elections in the Commonwealth of Puerto Rico signaled the initiation of a major transformation in the historical role of the government, as provider of health services to the medically-indigent population of Puerto Rico. Employing privatization strategies, the government changed both the manner in which health care is financed and delivered.

This report provides a description of the health care reform plan begun in 1993, as well as a discussion of the major historical events that preceded the plan. The report is organized into four parts. The first part provides a general overview of socio-economic and demographic trends in Puerto Rico; a brief description of employment and health insurance coverage; and health care financing in Puerto Rico. The second part consists of a brief account of the principal historical events that shaped the Puerto Rico health care system, followed by a description of the reform plan initiated in 1993. This section includes a legislative analysis, a description of the content of the reform plan, and a description of the changes in the structure and operation of the health system, including how the pilot areas were selected. The results of the implementation of these pilot projects conclude the first part of the report.

The third part of the report consists of a comparative analysis of the Puerto Rico health care reform plan with those of seven states that were selected because of their aggressive approach to reform, beginning actually before the attempt at federal health care reform. These states are Arizona, Florida, Hawaii, Minnesota, Oregon, Tennessee, and Vermont.

The fourth and final part of the report provides a discussion of the critical issues of Puerto Rico's health care reform plan, highlighting those that are critical to the success of the reform effort, and which remain unresolved.

Economic Development and the Rise of the Puerto Rico Public Health Care Sector

Since 1950, Puerto Rico has successfully developed an industrial and commercial economy, with concurrent urbanization. Population and total employment have grown by 60 percent since 1950 and now over 70 percent of the population live in urban areas. However, the proportion of citizens who are unemployed or have low incomes remains persistently high. Furthermore, Puerto Rico has few firms which provide health insurance to their employees.

Table 1
Firms Providing Health Insurance

Number of Employees	Number of Employers	Employers Providing Health Insurance	Percent of Employees Provided Health Insurance
<9	34,436	565	2%
10-49	7,230	2,546	35%
50-99	1,162	863	65%
100-249	893	354	40%
250-999	597	407	68%
>1,000	79	74	94%
TOTAL	44,397	4,698	11%

Source: Puerto Rico Institute for Management and Health Policy.

Over 80 percent of the labor force is regularly employed. The majority of jobs are in government, services, commerce, and manufacturing, accounting for 22 percent, 22 percent, 20 percent, and 16 percent of employment, respectively. However, only 11 percent of all private employers provide health insurance and 88 percent of firms providing insurance employ 10 or more workers. The majority of private employers are small, with 77 percent of all firms employing nine or fewer workers and 96 percent of firms providing less than 100 jobs. Table 1 presents data on employment and health insurance.

Table 2
Employment, Income and Costs of Insurance Comparison
Puerto Rico vs. United States - 1990

	UNITED STATES	PUERTORICO
Unemployment Rate	6.3	20.4
Payroll per Worker	\$31,193	\$12,700
Median Family Income	\$35,225	\$9,988
Percent Families Earning \$ 25,000 or more	67%	16%
Percent of Families Receiving Food Stamps or Equivalent Cash Payments	9%	43% (1992)
Private Health Insurance Cost (premium per insured)	\$763	\$596
Uninsured + Medicaid Rate	24%	55%

Source: The Puerto Rico Institute for Management and Health Policy; Statistical Abstract of the United States 1993.

Many working residents and their dependents cannot afford to purchase health insurance, consuming their resources on other essentials. During the period 1991-1992, 43 percent of the residents received governmental nutritional assistance in the form of cash payments. Table 2 presents recent income and health insurance data.

Demographic and Health Status Trends in Puerto Rico

The Commonwealth's demographic and health status trends reflect the Island's economic transformation. Two specific trends will continue to drive up medical care costs. First, the fertility rate, though declining, remains 16 percent higher than for the mainland and teenage pregnancies continue at a significantly high rate, contributing to the Islands' high infant mortality rate, which remains 38 percent higher than the United States.

The second significant trend that will contribute to increased medical care demand and expenditures is the increasing size and proportion of residents aged 65 and older. This population group has grown 175 percent since 1960, and represents 10 percent of the population (1990) data.

Other health status indicators indicating underlying factors that may adversely affect health care utilization and expenditures include a significantly higher rate of diabetes and diabetes-related mortality than the mainland, an HIV-related death rate 59 percent higher than the mainland, and a homicide rate 60 percent higher.

Puerto Rico's Health Care Infrastructure and Utilization¹

To address the medical needs of a large publicly covered population Puerto Rico state and municipal governments operate a large health care system. The government employs 30 percent of the Commonwealth's physicians and operates 40 percent of the hospital beds on the Island. Table 3 presents the Commonwealth's medical care resources.

Table 3
**Health Care Resource Comparison: Puerto Rico to United States Total Health
1991**

	TOTAL U.S.	PUERTO RICO Private Sector	PUERTO RICO Public Sector	PUERTO RICO TOTAL
Hospital Beds per 1000 population	4.7	2.8	2.3	2.6
Physicians per 1000 population	224	212.5	95.8	295

Source: The Puerto Rico Institute for Management and Health Policy; Statistical Abstract of the United States 1993. Provider files, Triple S, January to March 1994.

1 This section is based upon the grant proposal and first report submitted to the U.S. Health Care Financing Administration entitled, Coordinating Health Care Reform with the U.S. Territories and Possessions: The Case of Puerto Rico. Puerto Rico Institute for Management and Health Care Policy.

The public community health centers and regional hospitals provide 38 percent of all medical care visits and 40 percent of all hospital days. The Islands' private sector health system insures the remaining 40 percent of the population.

Health Care Financing in Puerto Rico

Federal funds for Medicare and Medicaid reimburse 30 percent of health care costs in Puerto Rico. The Commonwealth and municipal governments pay for 30 percent of the Island's health care expenditures. Twenty-nine percent of health care expenditures are paid by private insurance. Individual out-of-pocket expenditures account for the remaining 11 percent.

The public sector finances 80 percent of its health care budget from Commonwealth and municipal funds. Federal Medicaid funds provide 10 percent of the public sector's resources, while Medicare generates 4 percent. This contrasts with Medicaid funding in the mainland where states receive an average of 60 percent of funds from the Federal Medicare Program. Private insurance and out-of-pocket reimbursement provide the remaining 6 percent.

The private sector is heavily dependent upon Medicare, obtaining 40 percent of its revenues from this source. Forty-six percent of expenses are paid for by private insurance, while individuals contribute 14 percent of reimbursement with out-of-pocket payments.

Table 4
Distribution of Government Health Services Expenditures
Puerto Rico, 1989-91
(thousands of dollars)

	1988-89	1989-90	1990-91
P.R. Budget	\$10,217,842	\$10,909,009	\$11,391,856
Depart. Health +AFASS	597,738	729,313	751,166
Department of Health	34,113	36,121	33,259
AFASS	563,625	693,192	717,907
Municipalities	135,299	141,838	147,418
Legislative	31,074	27,292	27,830
Ordinary	104,225	114,546	119,588
Total	\$733,037	\$871,151	\$899,584
%Total P.R. Budget	7.17%	7.99%	7.89%

Sources: Department of Health; Administración de Facilidades y Servicios de Salud (AFASS); Puerto Rico Office of Management and Budget; and Municipal Services Administration in "La Situación Fiscal de Puerto Rico y su Impacto en los Servicios de Salud", General Health Council, P.R. Department of Health, 1991.

One-hundred percent of Medicaid receipts are received and used by the public sector, as private sector providers are not accessible to this population. Only 9 percent of Medicare payments are

received by government providers. Medicare public payments result from approximately 35 percent of Medicare beneficiaries not enrolling in the Supplemental Medical Insurance program (Part B) for physician services, instead relying on the public clinics for these services. On the mainland, in contrast, approximately 95 percent of all eligible participants enroll in Part B.

Total health care expenditures in the Commonwealth grew at an average annual rate of 11 percent during the late 1980s and these expenditures now account for 11 percent of the Gross Domestic Product of the island. The public and private sectors experienced similar double digit growth rates during this time of approximately 11 percent.

Historical Background

In 1952 Puerto Rico inaugurated a new relationship with the United States. The Commonwealth of Puerto Rico was born with a new constitution and the first governor to be elected by the people. At the same time, Operation Bootstrap was initiating an economic program designed to jump start the Puerto Rico economy in its early stages. In less than twenty years Puerto Rico underwent two major transformations: the agricultural economy yielded to an industrial economy; and Puerto Rico completed a rapid epidemiologic transition, substituting infectious and communicable diseases with acute and chronic conditions.

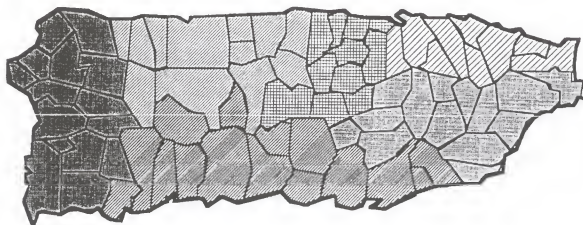
Within this economic development model, health care remained a responsibility of the government: a public utility through which the attainment of health represented a necessary resource for economic productivity, especially during this period of rapid socioeconomic development. As such, in 1954 the government initiated a major overhaul of the health care system, which culminated in the design and implementation of the regionalization model. This model provided for the delivery of health services through a network of primary care centers located in each of the Island's 78 municipalities; general acute care hospitals to serve as secondary care facilities; regional referral centers for specialized care in each of the six health regions; and a sub-specialty care medical center in San Juan, the capital (see Figures 1 and 2).

The government was the principal provider of health care, and financed its operations through public funds. In fact, the regionalization model could be defined as the first managed care program developed in Puerto Rico, as early as 1954. The model comprised a three-level integrated system of care, with a referral mechanism linking the three levels, and a financing model in which proportionally more funds were to be allocated to primary care facilities in order to promote health, prevent disease, and reduce the need for hospital care. It provided the appropriate structure for managing a varying epidemiology as the Island's economy, social structure, and consequently risk factors changed.

As the regionalization model was beginning to evolve, the private sector was also beginning to grow. The availability of Hill-Burton funds served to help develop a private hospital infrastructure

which paralleled and later surpassed the government system in number of beds. Medicare helped pay for graduate medical education, and hospital capital investments in technology, and additional hospital beds. The shift to inpatient care was swift as was the increase in the cost of providing health care. The government found itself allocating resources to public hospitals and paying less attention to the needs of primary care community health centers.

Figure 1
Puerto Rico Regionalization of Health Services Framework



Regions



Figure 2
How Services are Received

Located in the 78 towns of the Island, including Vieques and Culebra

PRIMARY CARE CENTERS



Gateway to health services, offer preventive and acute care, emergency services and community outreach

PRIMARY LEVEL

Located in San German, Yauco, Guayama, Humacao and Carolina

AREA HOSPITALS



Offer general acute care, surgery, hospitalization, and ambulatory treatment

SECONDARY LEVEL

Located in Aguadilla, Arecibo, Bayamón, Caguas, Fajardo, Mayaguez, Ponce and San Juan

REGIONAL HOSPITALS

Offer specialized and complex treatment surgery and hospitalization

TERTIARY LEVEL

Located in Rio Piedras

MEDICAL CENTER

Offers complex and specialized treatment with modern technology
Specialized surgery and hospitalization

SUPRA-TERTIARY LEVEL

As this pattern continued, municipal mayors emerged as the source for financing the operation of primary care centers located in their municipality. Many municipalities spend upwards of 50 percent of their budget on health care. The political value of these centers became rapidly evident. Mayors were fulfilling the health care needs of their constituents, albeit for acute care rather than preventive care which these centers were supposed to provide, and municipal elections were won on the visibility a mayor achieved in financing care for the medically indigent. The link between the primary care center and the rest of the regional network was broken, and the model never quite received the necessary support to succeed.

Legislation Health Care Reform

In 1975, the PDP created, through legislation, the Health Facilities and Services Administration, a bureaucracy reporting to the secretary of health designed to provide central management support to the entire public health system. While an interesting concept, this agency was never able to delegate decision-making and budgeting authority to each health region, and became another source for public employment and managerial stagnation.

In 1976, legislation was approved to reform the public health care system. P.L. 11 of June 23, 1976, titled the Puerto Rico Comprehensive Health Care Reform Law, contained in its language three principal policy initiatives: that access to health care should be universal, regardless of financial position; that health care should primary care; and that the Commonwealth Department of Health had the responsibility to ensure that the population received needed health care, but was not required to necessarily continue as a provider. This ushered in the era of privatization.

In 1979, the health department initiated a strategy to consolidate hospital beds. With the purpose of constructing the missing secondary echelon to the regional system, community hospitals were opened in five locations, and beds in primary care centers were gradually closed. These beds were no longer serving a medical purpose, as they were being occupied mainly by abandoned children and elderly. The new community hospitals served as the centerpiece for the privatization experiment. Once built, these hospitals were contracted to private management companies as a pilot project designed to study the feasibility of transforming the role of the commonwealth department of health from one of provider of health care, to one of purchaser.

The health department employed a risk arrangement consisting of a negotiated lump sum representing less than the actual cost to the health department of operating the hospitals. The contractor would raise the remaining amount of operating capital in order to provide care to the medically-indigent. They would then attract private patients and generate their earnings from both a presumably more efficient operation, and the inflow of private revenues. While this reform represented a new opportunity to integrate the primary care level back into the scope of the health department, it was once again left out of the process.

Most of these projects filed for bankruptcy as they were poorly supervised by the health department, which lacked a clear set of performance criteria for the private companies. Furthermore, the privatization strategy adopted did little to implement the policy initiatives laid out in the Comprehensive Health Care Reform Act of 1976. While the reasons for building community hospitals appeared to be a logical step toward completing the regionalization model, the fact that these hospitals were not formally linked to the primary care centers, which represent the point of entry to the public health care system, demonstrated the substitution of a strategy for integrating the systems components, for a short-sighted attempt at reducing the financial burden of operating the hospitals.

In 1985, again under a new government, the PDP, the concept of privatizing public hospitals came under fire from the new administration. However, the enormous cost of operating these facilities, coupled with a budget insufficiency, forced the health department to reconsider its position. As a result, the pilot project became an official policy through P.L. 103 of 1985, under which the health department assumed the capacity to enter into formal agreements with private contractors to operate public health care facilities.

Still another reform strategy was tried. In 1986 the commonwealth health department began to convert public primary care centers in municipalities to family health centers (FHC's). The argument was that primary care centers were not observing an appropriate utilization of primary care, including preventive services and public health interventions, due to their inability to deliver care. Relying on this supply-side argument the Health Department began its conversion plan which was abruptly discontinued when it was clear that not enough family medicine specialists were available for the conversion process, and more importantly, that the consumer side of the health care utilization equation also has an effect, and had not been anticipated in the government program.

During this time, actually beginning as early as 1971, community groups from a number of municipalities organized into not-for-profit corporations and submitted proposals to the Bureau of Health Care Delivery and Assistance of the U.S. Public Health Service, to obtain funding for the development of community health centers. Under Sections 329 and 330 of the U.S. Public Health Service Act, which fund migrant health centers and community health centers, respectively, these corporations received funding directly from the USPHS and established private community health centers. The experience of these centers has, in general, been successful. The centers are required to meet strict performance criteria in order to receive continued funding. This essentially amounts to a risk-based block grant that is tied to the achievement of specific health services indicators that in turn are associated with improvement in health status.

While it is difficult at this time to actually measure changes in health status in these communities, there is evidence that indicators such as compliance with prenatal care follow up, continuity for hypertension and diabetes, among others, have been superior to that observed in commonwealth

primary care centers. What does seem clear is that the attention to the health education needs of a population known for its poor history of use of preventive services, may have had an effect on increasing the utilization of these services among the medically-indigent population. It is surprising, however, that the results of these centers has not led the Health Department to incorporate successful features into the rest of the Island's primary care infrastructure. In fact, one comment from the present Commonwealth Secretary of Health was directed at these centers in the sense that if they do not conform to the government's health care reform plan, they may not be continued. These centers appear to be the only privatization strategy that has operated successfully for more than twenty years.

The 1992 Election: The Era of Insurance Driven Reform

Following the 1992 election in which the NPP returned to office under governor Rosselló, a surgeon, health care reform was once again in the works. But this time, the project was much more ambitious than at any time since the regional model in 1954. The new government offered the medically indigent a private insurance card with freedom of choice of physician and hospital providers. The reform plan was argued on two assumptions: that the private sector provided higher quality care than the public sector; and that the private sector was more efficient than the public sector. While neither of these two assumptions have ever been tested, they were employed as the principal arguments for reform. As an example, the government attributed a greater observed infant mortality in the public sector to a problem of poor quality of care, and did not take into account differences in socioeconomic status and exposure to risk factors.

On the assumption of efficiency, it is to be recognized that hospitals in Puerto Rico do not compete on the basis of price, since these are controlled by insurers, but rather compete on new services. Two things occur here; on the one hand, new services are technology-intensive, which drives up the cost of providing care; and, the fact that there are two distinct health care systems, a public and private system, the government cannot risk not having technology available in the private sector, available as well in the public sector. This drives the cost of care even higher, as technology is unnecessarily duplicated.

On the assumption of quality, it is important to recognize that contrary to the mainland United States, in Puerto Rico the vast majority of physicians and other health care professionals train in public hospitals and health care facilities. It is thus difficult to sustain the assumption of superior quality, at least from an input approach.

The administration approved legislation to lay out the required steps for its health care reform plan. As a result, P.L. 72 of September 7, 1993 created the Puerto Rico Health Insurance Administration (PRHIA), as an entity within the Commonwealth Department of Health, and under authority of the Secretary of Health.

The plan consists of a two-prong approach. On one hand, PRHIA accepts bids from insurance companies operating in conformity with the Puerto Rico Insurance Code. The winning company will provide health insurance to a defined population representing the medically-indigent. On the other hand, the department of health will accept bids from management companies for the operation of the primary care centers and hospitals. The following section provides a full description in this report.

Early in 1995, the mayor of San Juan, the capital city, announced the creation of a separate health care reform plan for the capital city. The mayor, who represents the opposing Popular Democratic Party, explained that this new plan was tailored to the specific needs and conditions of San Juan. San Juan has a separate health department, as the only autonomous municipality on the Island, and is designed to meet the specific needs of the population of the capital city. The plan, approved in early May, 1995 by the San Juan municipal assembly, is designed along the concept of a staff-model HMO. Unlike the Commonwealth model, in which the bidding process for the operation of the health care facilities and the insurance product are conducted independently, the negotiation process will require that prospective insurers and management companies demonstrate before that their objectives and operating systems are compatible, before contracts are signed.

Also being negotiated is the length of the contract. The San Juan Health Department has argued that many of the health conditions and risk factors prevalent among the medically-indigent population in San Juan will require substantial investment in time in order to demonstrate improvement in health status. As such, contracts must cover periods greater than the current one-year cycle in order to avoid great financial hardship on contractors during the early stages of the plan's implementation.

One interesting aspect of San Juan is that the majority of the medically indigent population live in geographically-defined and circumscribed areas, in contrast to the rest of the Island. These areas are served each by a primary care center operated by the municipal government, and supported by a large tertiary care hospital located in the Puerto Rico Medical Center grounds. A full description of this model appears in the next section following the description of the Puerto Rico model.

It is almost impossible to separate the political issues of reform from the decision to create a separate health reform model for San Juan. One of the immediate effects of the Island reform has been to alter the balance of power that mayors had for decades through their funding and operation of the primary care centers located in each municipality. As the insurance driven reform reaches each municipality, the electoral value of these centers is transferred from the mayors to the governor's office, since this reform is the result of an administration initiative. It therefore makes much sense to create a separate model for San Juan, and avoid political fallout. The fact that the mayor of San Juan is running for governor in the 1996 elections lends credibility to this explanation.

Selection of the Pilot Areas

The health care reform plan is designed to be implemented throughout the Island in eight areas; one area per year over an eight-year period. The plan calls for a pilot project in order to test the model and correct for deficiencies in its design and operation. Four initial areas were considered, and the decision would be based on the availability of public as well as private hospitals, the availability of private physician practices, with representation of the different specialties, community pharmacies and clinical laboratories. In this manner, the Puerto Rico Health Insurance Administration (PRHIA) would be able to fulfill its commitment to providing freedom of choice to enrollees in the plan.

The eastern region of Fajardo was selected as the pilot region in mid 1993. Patients were given the choice of enrolling in either the public primary care center in their municipality, which was to be privatized, or enrolling in a physician practice which received a capitation for each enrollee. Physicians acting as primary care health care managers would arrange for all care of their patients, including inpatient care through the capitated payment.

The pilot project quickly ran into trouble when the company that won the bid to operate the regional hospital and the primary care centers, withdrew after financial backers in turn withdrew their support. The reason provided for this issue was that the amount of patients actually enrolled in the plan represented roughly half the amount offered by the Health Department and PRHIA, and would not allow the contractor to generate a profit.

The bidding process was repeated twice with no company submitting a bid. This increased the cost to the health department three-fold, as they were forced to assume the operation of the hospital, hire a management company to provide managerial consulting until the hospital was contracted, and pay into the insurance pool which Blue Cross of Puerto Rico had successfully bid. A contractor for the hospital was finally signed in 1994, and the plan was able to continue. The only evaluation of the results of the pilot project available were those of a survey conducted by a local newspaper among the population in the eastern region. These results showed a significant approval rate of the reform based on questions designed to measure satisfaction with the plan. On reviewing the design of the survey instrument, however, it was noted that the questions were asked to people who were prospective enrollees and not enrollees per se. This obviously rendered the validity of the survey suspect.

Even though the pilot was not formally evaluated, the plan was extended to a second region in mid-1994, and again the contract for the insurance product was awarded to Blue Cross of Puerto Rico. Then, early in 1995, a third region was added to the reform, this time the insurance product awarded to Triple S (Blue Shield of Puerto Rico). Triple S chose a different financial arrangement for their insurance product. An IPA approach was employed to contract with private physician practices, and inpatient care was contracted separately. Triple S has also announced the intention

of installing computer terminals on-site in each contracted physician practice in order to monitor utilization and provide support to their IPAS. This is a significant improvement over the previous arrangement with Blue Cross, in which physicians themselves were responsible for monitoring their utilization, and acquiring the data management capability.

Data published in the media in early May of 1995 from the government's Office of Management and Budget indicate that the cost of the health care reform plan, once it is fully implemented by 1999, will be approximately \$655 million (Commonwealth Office of Management and Budget, 1995). The source cautions however, that this may be a conservative estimate, as the cost may increase from the current \$585 per enrollees at a rate of \$15 per enrollee per year through 1999. This would drive the total cost to over \$700 million. This estimate is based on a projected enrollee population of 1,135,593.

The plan calls for enrolling the entire medically-indigent population, which is estimated to be 1.7 million people. The PRHIA estimate for the total cost of covering this population would be approximately \$1.025 billion (PRHIA, 1994). Even this revised estimate, however, seems conservative. Data published in 1992 show that the cost of health insurance premiums grew at an annual rate of 12.0 percent for the period 1985-1990. Assuming this increase remains stable through 1999, the cost of the plan may well exceed the total cost to the Commonwealth of delivering health services directly, as it has done until now.

This scenario does not take into account the added cost of including coverage for public health services for enrollees, which are currently not covered in the insurance plan offered through the PRHIA. With the creation of the PRHIA, the policy is that by privatizing the financing and delivery of health services, the Commonwealth Department of Health will concentrate on core public health activities including health promotion and disease prevention, social work, nutrition counselling, and community outreach. These services will augment medical and hospital care provided by private physician groups under contract with PRHIA. The Department of Health is also responsible for collecting data on utilization, cost of care, and health indicators, as well as oversee the performance of contractors hired to operate the government's facilities.

Relevant Changes as a Result of PRHIA Reform

As a market for private health care matured in Puerto Rico during the latter half of the present century, the public utility role of the health care system was replaced with the role of the government assuming the responsibility of fulfilling the health care needs of the medically-indigent population, which is also considered to be poor (while 59.0 percent of the population is classified as poor, 45.0 percent are medically indigent). The cost to the Commonwealth government of providing health care to this population has been increasing rapidly and threatens to consume significant portions of resources needed for other sectors.

The intense competition between the private and public sectors based on new technology-driven services, far from reducing costs, has created an inefficient operation in both sectors. A heavily skewed distribution of the physician supply toward the private sector; an average bed occupancy of approximately 65.0 percent in both sectors; a Commonwealth health budget that grows at twice the rate of the ability of the government to generate revenues; and health insurance premiums that increase at three times the rate of average salaries on the Island, are major signals of the need to reform the health care system. Thus, the decision to substitute the role of the Commonwealth Department of Health, from one of administrator and provider, to one of purchaser and regulator, comes as a result of economic forces, as well as the transformation of the context in which the government initially operated.

Since the early 1980's there have been numerous recommendations for the need to integrate the public and private health sectors. Act 103 of 1985 legislated the authority of the Commonwealth government to privatize its health care facilities. Act 72 of 1993 authorizes the government to privatize access to health care by purchasing health insurance for the medically-indigent.

According to the reform program espoused by the new administration in 1993, the entire reform would be developed along the lines of the regionalization system, originally developed in 1954. This brings into play the possibility of adding an insurance product to the regional model and convert the system into a combination of staff-model, group-model, and IPA-type health maintenance organizations (HMO's). By eliminating deductibles for primary care, the plan intends to create an incentive for the use of these services by new enrollees, and in this manner, eliminate barriers to initiating needed care as soon as possible. With the integration of clinical preventive care, core public health activities, and ambulatory care in community health centers, the regional model was designed to promote health. However, the presence of competing provider groups presents a challenge to the model, as people are given a choice of enrolling in a variety of groups, of which only the community health centers are designed to provide the essential public health and clinical preventive services to the medically indigent. Those that enroll in alternative group models will not have these services available, and must be referred to the community health center. This may cause problems of patient tracking, monitoring of adherence to specific protocols or guidelines of care, and coordination of services, such as family planning, Women and Infant Children (WIC), and community outreach.

The proposal to integrate Medicare beneficiaries in the plan is also an interesting feature of the reform model. Those Medicare beneficiaries who enroll, would receive the benefit of Part B coverage, which approximately half of Medicare beneficiaries in Puerto Rico have. In exchange for enrolling, the PRHIA will add prescription drugs and dental care coverage for all Medicare beneficiaries that enroll. This would certainly prove attractive to the elderly as prescription drugs and dental care are the two most difficult services to get access to. Also, this offers the promise of channeling most if not all Medicare beneficiaries through a common managed care arrangement operated by the private sector.

Regardless of which strategy or strategies are adopted to implement health care reform in Puerto Rico, the “Card” is likely to remain as the driving force, at least for the next few years. Those that have never had a private health insurance plan will quickly define this as a benefit they are entitled to, and thus it will be very difficult to take away.

In 1992, the General Health Council, a policy advisory group located in the Commonwealth Department of Health, and reporting to an independent board, proposed a framework for advancing the discussion of health care reform, and its subsequent implementation. The members of this workgroup, representing different sectors and professions drew through consensus, a list of principles that should be followed in any reform effort:

- Maintain the current policy of guaranteeing universal access.
- The primary care level of the Regional Health Model shall be responsible for providing health promotion and preventive care.
- Community-based primary care delivery organizations must have administrative autonomy.
- Health services must respond to the interest of the community they serve.
- Fiscal responsibility and authority shall lie within the organization that delivers health care.
- Financial and administrative incentives must be employed to allow health care providers to deliver cost-effective care.
- Quality of care indicators shall be employed to monitor the delivery of health care, including professional credentialing, process measures, and outcomes evaluation.
- The current health care infrastructure should be used in order to achieve greater efficiency and reduce implementation problems.
- The planning and supply of health care professionals must be consistent with the needs of communities.
- Any reform attempt must be more cost-effective than the current system.

While these principles represent a consensus among providers, payors, government, business, and labor, few of them have actually been included in the current reform effort.

Puerto Rico Health Care Reform

Background:

Puerto Rico has a dual health care system, the public and the private sector. In the private sector, access to health care depends on the financial capacity of the individual to cover the cost of health services or purchase health insurance with his or her own resources. Public services are provided by the state through the Department of Health. The Commonwealth Department of Health has the responsibility to provide health services for the medically indigent population. The public sector serves approximately 50 percent of the population (1.7 million persons) through a regional system that comprises a supra tertiary medical center, 6 Regional Hospitals, 6 Area Hospitals and 78 Primary Care Centers. In the private sector there are 53 Hospitals. In addition, the capital city of San Juan operates a separate public health care system comprising a tertiary care teaching hospital, a long-term care facility, and nine primary care centers.

Several problems have chronically affected the public health system, including budget insufficiency, increasing cost of technology, excessive bureaucracy, and government centralization. In January of 1993, a new government administration took office in Puerto Rico and immediately initiated a major health care reform program. Two assumptions, that the private sector provides higher quality health care, and is more efficient than the public health system, served as principal arguments for reform. The goal espoused by the administration is to create a single health care system that is accessible to the entire population, regardless of financial status. The reform program consists of a dual strategy; privatizing government health care facilities, and purchasing private health insurance for the medically indigent.

Insurance Population:

In the 1990 Census, the population of Puerto Rico was estimated at 3.5 million persons. From this population approximately 1.7 million persons are insured. Approximately 1.2 million persons have private health insurance; 280,000 have Medicare Part A and B; and 185,000 are public employees who have access to health insurance with a government contribution for the payment of their insurance.

The remaining 50 percent of the population receive health care from the state through the Department of Health. From this population 900,000 persons qualify for Federal Medicaid and 300,000 participate in the State Medicaid Program. There are 180,000 persons who have

either Medicare Part A or Part A and B, but who are also recipients of either federal or state Medicaid. The remaining 500,000 persons are the "floating population" that rely on the Commonwealth government for medical assistance while unemployed and uninsured. It is important to point out that the federal match for the Medicaid program is set at 50 percent, with a federal cap set at \$122.5 million. This represents less than 20 percent of the Commonwealth's budget for health services in the public health care system.

Reform Legislation:

Health care reform in Puerto Rico follows two parallel processes. Act 103 of 1985, as amended, authorizes the Commonwealth Secretary of Health to privatize the operation of government health care facilities. This policy initiative has the objective of removing the government from its traditional role of provider of health services. In doing so, the Department of Health attempts to generate substantial savings through its privatization strategy. Health care facilities are privatized through a bidding process. The company who obtains the contract will be responsible for the entire operating costs of the facilities. Contracts are extended for privatizing the operation of the facilities, but exclude their sale to private concerns. The Department of Health does not own the facilities it operates, as these are constructed with funds obtained through debt financing, principally government bond issues. As such, bond holders own the facilities and must approve any decision regarding final disposition of the asset.

The second component of health reform is the creation of a private insurance plan for the medically-indigent population. This plan, which comprises the major thrust of the reform, is created through Act 72 of September 7, 1993.

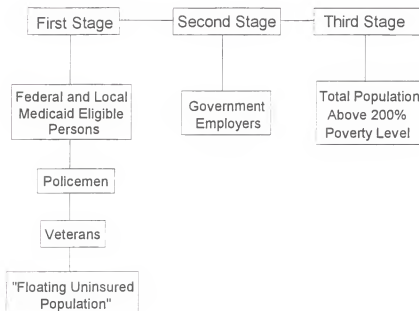
Act 72 of September 7, 1993 was the first step toward health care reform. This legislation created the Puerto Rico Health Insurance Administration (PRHIA). The PRHIA is a public corporation with full authority to implement, administer, negotiate, and contract health insurance coverage for all eligible residents of Puerto Rico, particularly the medically-indigent. Under Act 72, the medically-indigent have access to hospital and medical care regardless of their economic status or payment capacity.

Health Care Reform Plan:

The PRHIA has developed a three stage plan to develop health care reform (Figure 3). The first stage will provide health insurance to the Department of Health beneficiaries which include federal and local Medicaid eligible persons; policemen, their spouses and children, who choose to participate; veterans, their spouses and children certified by the federal Medicaid program; and "the floating" uninsured population. This stage will be developed by providing health insurance coverage to all beneficiaries in two health regions per year. The first stage began on February 1, 1994. The second stage will begin in 1995 and will include all government employees in a third

region. The final stage will include the entire Puerto Rico population above 200 percent of the poverty level.

Figure 3
Health Care Reform Plan



In the first stage of the health reform PRHIA has divided its responsibilities with the Department of Health. The Department of Health is responsible for privatizing the health facilities, determining eligibility of individuals to participate in the health insurance plan, and selecting the areas for the pilot projects. PRHIA must establish cost control mechanisms to prevent unjustified raises in the cost of health care services. Also, PRHIA must examine all aspects that affect access, quality, cost control, and utilization of health services, as well as to protect the rights of beneficiaries and health care providers.

Specifically, Act 72 establishes that PRHIA, must assure free choice of health insurance plan between two or more insurers selected by PRHIA, and within the health region of the enrollee's residence. PRHIA is applying this mandate for the first stage only. The beneficiary shall be assured free choice of a health insurance plan in stages two and three. Blue Cross of Puerto Rico won the first two contract bids held, and is the sole insurer per project. Triple S (Blue Shield of Puerto Rico) won the third bid and is implementing an IPA-type project, given the proportionally larger number of physicians available in private practice.

The contracted health plan must issue identification cards similar to those provided to other insurers under plans with similar coverage. This is to prevent any discrimination that might occur. In the same manner, the coverage of the contracted health plan is intended to provide a broad

scope of coverage with a minimum of exclusions, and with no discrimination for age and sex. There are no exclusions for pre-existing conditions, or waiting period at the time of granting coverage to beneficiaries. Moreover, the contracted health plan will act as a secondary payor in the case that an eligible individual has additional health insurance.

Also, PRHIA will oversee private health plan marketing practices, monitor fraudulent reporting, investigate unacceptable risk selection activities, private health plan accountability, and compliance with the managed competition reform.

Evaluation Program of Health Care Reform:

Table 5 shows the Plan Compliance Evaluation Program: the operational areas, and the point value of the evaluation. The primary role of PRHIA is to negotiate and contract with health plans according to the parameters set in the request for proposals that are submitted to several insurers who participate in the bidding process. The benefit package is determined by PRHIA and it must be comprehensive following Act 72 and the request for proposals.

Once the contract is formalized, the insurer will be subject to periodic evaluations performed by the staff of PRHIA to guarantee compliance with the contract. Performance by the insurer is measured through on-site audits at the insurer's administrative offices, at the offices of contracted providers and through the data submitted by the insurer to PRHIA, on a sampling basis. Periodic evaluations will include assessments of quality, need, accessibility, utilization, cost of services, eligibility and enrollment of beneficiaries, services to beneficiaries and providers, coverage of benefits, financial requirements, rules and regulations, plan initiatives, fraud and abuse, and grievance handling. All criteria and their standards will be scored to a total of 1,000 points per year, per contract. The insurer has an obligation to submit encounter data, as well as to assure its financial stability. All health plans that are contracted must be certified for solvency.

Once beneficiaries have access to two health plans within a particular region, PRHIA will be able to compare performance and characteristics of both plans and participating providers, and make it accessible to the general public before they make the final selection of the plan. The inclusion of a fee for service plan for stages II and III is being considered as an alternative to managed care, but the beneficiary would have to pay a higher co-insurance, deductibles and contribute to the payment of premiums.

Another major role of PRHIA, is to protect the rights of beneficiaries and health care providers. This is achieved through the establishment of a grievance procedure that grants due process to beneficiaries as well as to health care providers. Under the current agreement with the insurer, all complaints from beneficiaries and providers must be filed with the insurer following the terms established in the contract for proper solution. If the beneficiary or provider does not agree with the decision made or to the issue submitted to the insurer, the beneficiary or the provider can

appeal the decision of the insurer before PRHIA, as established by regulations. The final determination of PRHIA shall be reviewable by the Puerto Rico court system.

Table 5
Plan Compliance Evaluation Program Overview

OPERATIONAL AREAS AND SUB-AREAS	REVIEW AT	POINT VALUE
A. Eligibility and Enrollment		120
- Enrollment Process	Insurer	40
- Choice of Provider	All PCCs	20
- Eligibility	In House	40
- Conversion Clause	Insurer	20
B. Services to Beneficiaries and Providers		60
- Summary Plan Description Booklets	Insurer	20
- Community Orientation Program	Insurer	20
- Beneficiary Plan Satisfaction Survey	In House	20
C. Coverage of Benefits (Contracting)		40
- Contracting of and by PCCs	Insurer/All PCCs	20
- Contracting of Specialty Providers	Insurer	10
- Contracting of Emergency and Ambulance Services	All PCCs	10
D. Reporting		150
- Required Reports/Data Submitted	In House	80
- Reports/Submitted on Time	In House	30
- Quality of Reports	Insurer/PCCs	40
E. Financial Requirements		80
- Record Keeping and Controls	Insurer	20
- Financial Statements	In House	20
- Plan Experience	Insurer	40
F. Rules and Regulations		40
- Bulletins of three Specials Legal Issues	Insurer	10
- Notice Regarding Denial of Services	All PCCs	10
- Beneficiary Medical Records	All PCCs	20
G. Plan Initiatives		80
- Secondary Payor	Insurer/All PCCs	30
- Second Surgical Opinion	All PCCs	30
- Special Initiative	Insurer	20
H. Quality, Appropriateness, Timeliness, and Cost		90
- Quality of Services	Insurer/All PCCs	30
- Appropriateness of Services	All PCCs	20
- Timeliness of Payment for Services	Insurer	40
I. Utilization		60
- Hospital Admissions	Insurer	30
- Treatment of Chronic Conditions	Insurer	30
J. Fraud and Abuse		20
- Effectiveness of Insurer Program	Insurer	20
K. Accessibility		200
- Physicians/Patient Ratios	All PCCs/Insurer	60
- Patient Care Review	All PCCs	110
- Waiting Time for Ambulance	All PCCs	30
L. Grievance Handling		60
- Timeliness of Replies	Insurer	40
- Advice of Further Appeal Rights	Insurer	20

TOTAL POTENCIAL POINT VALUE FOR CONTRACT YEAR:

1,000

NOTE: The overview given above is based on the February 1, 1994 version of the protocol for the Plan Compliance Evaluation Program. Standards for evaluation are revised.



Eligibility and Deductibles:

After obtaining the approval from the Health Care Financing Administration (HCFA) Region II, PRHIA signed a contract with a private health plan (Blue Cross of Puerto Rico). This health plan must provide health care coverage in a managed care system to approximately 60,000 eligible persons that include the three major groups of beneficiaries participating in stage one. The eligible population for this first stage are those persons between 0 - 200 percent of the local poverty level. The local poverty level is \$401 for a one person family and \$95 for any additional person. Those with income up to \$791 per month are covered.

Table 6
Deductibles

Services	51% to 99%	100% to 130%	131% to 200%
Hospitalization:			
- Per admission	\$3.00	\$5.00	\$15.00
- Per admission (mental)	\$3.00	\$5.00	\$15.00
- Nursery	\$0.00	\$0.00	\$0.00
Ambulatory Visits to:			
- Primary Physicians	\$1.00	\$2.00	\$2.00
- Specialist	\$1.00	\$2.00	\$3.00
- Sub-Specialist	\$1.00	\$2.00	\$4.00
- Pre-natal services	\$0.00	\$0.00	\$0.00
Clinical Laboratories	\$0.50	\$1.00	\$2.00
X-Rays	\$0.50	\$1.00	\$2.00
Physical Therapy	\$1.00	\$1.00	\$2.00
Respiratory Therapy	\$1.00	\$1.00	\$1.00
Specialized Diagnostic Test	\$1.00	\$1.00	\$5.00
Emergency Room Services	\$1.00	\$2.00	\$5.00
Immunizations	\$0.00	\$0.00	\$0.00
Well Baby Care	\$0.00	\$0.00	\$0.00
Dental Services:			
- Preventive (child)	\$0.00	\$0.00	\$0.00
- Preventive (adult)	\$1.00	\$2.00	\$3.00
- Restorative	\$1.00	\$2.00	\$3.00
Prescription Drugs (per drug)	\$0.50	\$1.00	\$3.00
Maximum per Ambulatory Encounter	\$3.00	\$5.00	\$7.00

Note: Deductibles do not apply to beneficiaries that fall in a category under fifty percent (50%) of medical indigence.

The medically indigent population pay deductibles according to the amount of the income level of the enrollee. Beneficiaries that fall in a category under 50 percent of medical-indigence are not required to pay deductibles. Three levels of deductibles have been designed according to the medical indigence level. The first level is from 51 - 100 percent, the second one from 101 - 130 percent, and the last one from 131-200 percent (Table 6). According to Medicaid, nursery, prenatal care services, immunizations, well baby care, and preventive child dental services do not pay any deductible. In the future, those who become eligible for coverage between 130 - 200 percent of medical indigence shall be granted subsidies for payment of premiums. At the moment, those individuals who are under 200 percent of medical indigence will receive full coverage under the contracted health insurance plan.

Type of Coverage:

The health plan must offer two different types of coverage: basic coverage, and special coverage. The benefits of basic coverage include: hospitalization services, visits to physicians, surgical services, maternity services, preventive services such as annual health evaluations including eye tests, hearing tests, nutritional screening, Pap smears (one per year), mammograms, well baby care during the first two years of life, immunizations, and PSA for the screening of prostate cancer, among others; limited mental health services that include detoxification and ambulatory services, diagnostic test services, clinical laboratory tests, x-rays, physical therapy and respiratory therapy, emergency room services, dental services, prescription drug services, eye care, and ground, maritime, and air ambulance services. The benefits for the special coverage include: cardiovascular, neurovascular, neurosurgical procedures, peritoneal dialysis and hemodialysis, neonatal intensive care unit services, services for treatment of Cancer, specialized diagnostic tests such as computerized tomographies, M.R.I., cardiac catheterization, nuclear tests, invasive cardiovascular procedures, lithotripsy, SPECT, endoscopies, treatment for AIDS, tuberculosis, leprosy, pacemakers, valves, other artificial devices for the heart, and hospital services for substance abuse. The benefits of the basic coverage will be offered through Primary Care Centers located at each municipality and IPA practice.

Each Primary Care Center shall be staffed by primary care physicians, including, family practitioners, internists, pediatricians, obstetricians/gynecologists, and general practitioners. In the same manner, it must have specialist physicians, according to the morbidity and mortality rates of the area. These services must be under the basic coverage. They are also required to have support providers such as dentists, optometrists, clinical laboratories, x-ray facilities and pharmacies. The special coverage is offered through a network of participating providers who have contractual agreements with the insurer for rendering such services throughout the Island.

Moreover, the contracted health plan includes coverage for Medicare beneficiaries who are medically indigent, and certified as such by the State Medicaid program. Also, PRHIA is currently considering a proposal to include additional benefits to the Medicare coverage. For those who

have Part A Medicare coverage, the insurer will cover all benefits not included in Part A that are covered under the contracted health plan. In the same manner, for those Medicare beneficiaries who have both, Parts A and B, the contracted health plan will cover deductibles and co-insurance for Part B, and it will provide prescription drugs and dental coverage.

Table 7
Basic and Special Coverage of the Puerto Rico Health Reform

BASIC COVERAGE	SPECIAL COVERAGE
Hospital Services	Cardiovascular and neurosurgical procedures.
Medical and Surgical Services	Hemodialysis and peritoneal dialysis treatment
Maternity Services, including Prenatal and Post-partum Services	Neonatal intensive care unit services
Preventive Services	Radiotherapy, cobalt, chemotherapy and radioisotope's therapies and treatments
Limited Ambulatory Mental Health Services and up to 30 days of hospitalization per year for mental conditions, substance abusers' detoxification, treatment and rehabilitation services at the ambulatory and hospital levels.	A diagnostic test such as: - Computerized Tomographies - Magnetic Resonance Imaging - Cardiac Catheterization - Nuclear Test - Invasive Cardiovascular Procedures - Lithotripsy - SPECT - Endoscopies and others
Clinical Laboratory Test, x-rays, Electrocardiograms, Pulmonary Function Test, Electroencephalograms, Stress Test	AIDS treatment fro a maximum of \$25,000.00 per year, for ambulatory services and a maximum of \$25,000.00 per year, for hospital services.
Physical Therapy and Respiratory Therapy.	Pacemakers, valves and other instruments, apparatus ar. artificial device for the heart.
Emergency Room Services	Hospitalization services for substance abuse limited to a maximum of thirty (30) days for life.
Dental Coverage that includes	
Prescription drug services for acute conditions as well as for chronic conditions	
Ground, Maritime and Ambulance Services	

Status of the Health Care Reform:

The health care reform is currently operating as a pilot project in two specific health areas that encompass eleven municipalities of the northeastern and southeastern areas of Puerto Rico. The northeastern health area of Puerto Rico consists of six municipalities: Fajardo, Ceiba, Culebra, Luquillo, Rio Grande and Vieques. At present, there are 59,212 eligible beneficiaries that include

13,829 individuals and 14,617 families with 45,353 members. The Southeastern Health Area comprises five municipalities: Guayama, Arroyo, Maunabo, Patillas and Salinas. At present, there are 75,095 eligible beneficiaries that include 15,534 individuals and 18,300 families with 59,561 members. Services in this area began on October 3, 1994. In 1995, the Administration will be adding two new health areas to the program, the Northern and Central Health Areas. Every six months the health insurance plan will be implemented in a different region until the 1.7 million person goal is achieved by July, 1998.

Cost Per Patient and Coverage:

Cost per patient fluctuates currently between \$603.00 and \$620.00, per year. The total annual cost for the insurance will be approximately \$1.025 billion which is \$200 million more than the actual cost to the Department of Health. For these groups, PRHIA shall pay the insurer a premium for individual or family coverage based upon the contracted benefits. The current monthly premiums fluctuate from \$52.76 to \$58.30 for individual coverage, and from \$149.45 to 155.40 for family coverage.²

PRHIA will maintain an enrollment database that will include all those persons eligible to participate under the plan contracted. PRHIA shall certify to the insurer all eligible individuals so that the insurer can proceed with the last stage of enrollment. Once the individual is enrolled, the insurer notifies PRHIA and the latter pays the agreed upon premium according to the individuals that were certified by the PRHIA and are currently enrolled in the health plan. PRHIA will maintain a database with updated information in order to track the services rendered by health care providers and for beneficiaries, to assess the quality of those services.

In the same manner, PRHIA will collect monies for payment of premiums from funds that have been transferred from The Department of Health of Puerto Rico, including State and Federal Medicaid funds, Block Grants as well as State Municipal funds and legislative funds. In the case of all policemen who choose to participate in the health plan sponsored by PRHIA, PRHIA will receive from the employer the amounts that they contribute for coverage in order to pay for the premium. In 1995, Government employees are also expected to take part in the health reform program. Government employees shall be given the choice to select a health plan. PRHIA will negotiate their health plan, and the contribution of the employer toward their health care insurance will be used for paying the premium under the health reform. The employee will be required to contribute to the payment of the premium. PRHIA shall collect from the employer and employee and pay the premium to the plan selected by the employee. In the third stage of the plan, PRHIA will consider collecting premiums from the employer and employee.

2 Source: PRHIA Presentation, "The American Public Health Association", Annual Meeting, 1994.

Summary of major principles of Puerto Rico

Health Care Reform

Introduction

This section presents a summary of the major principles that were adopted to implement the Puerto Rico health insurance plan as of 1993. They are presented as a quick reference guide when comparing the plan to plans being implemented elsewhere, especially among the individual states of the United States. Details regarding the implementation of these principles are included in the preceding section on Puerto Rico health care reform. The conclusions and recommendations of this report as well as the key policy issues identified appear at the end of the report.

Universal Coverage

After obtaining the approval from the Health Care Financing Administration (HCFA) Region II, the Puerto Rico Health Insurance Administration (PRHIA) signed a contract with a private health plan (Blue Cross of Puerto Rico). This health plan must provide health care coverage in a managed care system to approximately 60,000 eligible persons that include the three major groups of beneficiaries participating in stage one. The eligible population for this first stage are those persons between 0 - 200 percent of the local poverty level. The local poverty level is \$401 for one person family and \$95 for any additional person. Those with income up to \$791 per month are covered.

Benefits

The health plan must offer two different types of coverage: basic coverage, and special coverage. The benefits of the basic coverage include: hospitalization services, visits to physicians, surgical services, maternity services, preventive services such as annual health evaluations including eye tests, hearing tests, nutritional screening, Pap smears (one per year), mammograms, well baby care during the first two years of life, immunizations, and PSA for the screening of prostate cancer, among others; limited mental health services that include detoxification and ambulatory services, diagnostic test services, clinical laboratory tests, x-rays, physical therapy and respiratory therapy, emergency room services, dental services, prescription drug services, and ground, maritime, and air

ambulance services. The benefits for the special coverage include: cardiovascular, neurovascular, neurosurgical procedures, peritoneal dialysis and hemodialysis, neonatal intensive care unit services, services for treatment of Cancer, specialized diagnostic tests such as computerized tomographies, M.R.I., cardiac catheterization, nuclear tests, invasive cardiovascular procedures, lithotripsy, SPECT, endoscopies, treatment for AIDS, Tuberculosis, Leprosy, pacemakers, valves, other artificial devices for the heart, and hospital services for substance abuse. The benefits of the basic coverage will be offered through Primary Care Centers located in each municipality as well as in IPA practices contracted.

Access

Financial Barriers: The medically indigent population pay deductibles according to the amount of the income level of the person. Beneficiaries that fall in a category under 50 percent of medical-indigence are not required to pay deductibles. Beneficiaries are not subject to deductibles or coinsurance for primary care services. Three levels of deductibles have been designed according to the medical indigence level. The first level is from 51 - 100 percent, the second one from 101 - 130 percent, and the last one from 131-200 percent.

Geographic Access: Government-operated (now to be privatized) diagnostic and treatment centers provide primary care in each of the Island's 78 municipalities. Also, IPA's will operate as alternatives for subscriber choice to the health plan. An Island-wide hospital network is also available.

Financing

PRHIA will collect monies for payment of premiums from funds that have been transferred from The Department of Health of Puerto Rico, including State and Federal Medicaid funds, Block Grants as well as State Municipal funds and legislative funds. In the case of all policemen who choose to participate in the health plan sponsored by PRHIA, PRHIA will receive from the employer the amounts that they contribute for coverage in order to pay for the premium. In 1995, Government employees are also expected to take part in the health reform program. Government employees shall be given the choice to select the health plan. PRHIA will negotiate their health plan, and the contribution of the employer toward their health care insurance will be used for paying the premium under the health reform. The employee will be required to contribute to the payment of the premium according to a

percentage to be determined. PRHIA shall collect from the employer and employee and pay the premium to the plan selected by the employee. In the third stage of the plan, PRHIA will consider collecting premiums from the employer and employee.

Cost per patient fluctuates currently between \$603.00 and \$620.00, per year. The total annual cost for the insurance will be approximately \$1.025 billion which is \$200 million more than the actual cost to the Department of Health. For these groups, PRHIA shall pay the insurer a premium for individual or family coverage based upon the contracted benefits. The current monthly premiums fluctuate from \$52.76 to \$58.30 for individual coverage, and from \$149.45 to 155.40 for family coverage.

Organization and Administration

The health care reform plan is implemented through two parallel mechanisms; the first privatizes the operation of government health care facilities; the second, privatizes the financing of care through an insurance product. Act 103 of 1985, as amended, authorizes the contracting of private concerns to operate government facilities. Contractors assume the operating cost of the facilities and are expected to be more efficient, while also attracting privately insured patients to improve their revenue potential.

Act 72 of September 7, 1993, creates the Puerto Rico Health Insurance Administration, PRHIA, to negotiate insurance coverage for the medically-indigent.

PRHIA has developed a three stage plan to develop the health care reform. The first stage will provide health insurance to the Department of Health beneficiaries which include federal and local Medicaid eligible persons; policemen, their spouses and children who choose to participate; veterans, their spouses and children certified by the federal Medicaid program; and "the floating" uninsured population. This stage will be developed by providing health insurance coverage to all beneficiaries in two health regions per year. The first stage began on February 1, 1994. The second stage will begin in 1995 and will include all government employees in a third region. The last stage will include the entire Puerto Rico population above 200 percent of the poverty level.

The primary role of PRHIA is to negotiate and contract with health plans according to the parameters set in the request

for proposals that are submitted to several insurers who participate in the bidding process. The benefit package is determined by PRHIA and it must be comprehensive following Act 72 and the request for proposals.

Once the contract is formalized, the insurer will be subject to periodic evaluations performed by the staff of PRHIA to guarantee compliance with the contract. Performance by the insurer is measured through on-site audits at the insurer's administrative offices, at the offices of contracted providers and through the data submitted by the insurer to PRHIA, on a sampling basis. Periodic evaluations will include assessments of quality, need, accessibility, utilization, cost of services, eligibility and enrollment of beneficiaries, services to beneficiaries and providers, coverage of benefits, financial requirements, rules and regulations, plan initiatives, fraud and abuse, grievance handling. All criteria and their standards will be scored to a total of 1,000 points per year, per contract. The insurer has an obligation to submit encounter data, as well as to assure its financial stability. All health plans that are contracted must be certified for solvency.

Once beneficiaries have access to two health plans within a particular region, PRHIA will be able to compare performance and characteristics of both plans and participating providers, and make it accessible to the general public before they make the final selection of the plan. The inclusion of a fee for service plan for stages II and III is being considered as an alternative to managed care, but the beneficiary would have to pay a higher co-insurance, deductibles and contribute to the payment of premiums.

Another major role of PRHIA, is to protect the rights of beneficiaries and health care providers. This is achieved through the establishment of a grievance procedure that grants due process to beneficiaries as well as to health care providers. Under the current agreement with the insurer, all complaints from beneficiaries and providers must be filed with the insurer following the terms established in the contract for proper solution. If the beneficiary or provider does not agree with the decision made on the issue submitted to the insurer, the beneficiary or the provider can appeal the decision of the insurer before PRHIA, as established by regulations. The final determination of PRHIA shall be reviewable by the Puerto Rico court system.

Community Participation

An amendment to PL 72 of September 7, 1993, approved on October 8, 1994 included two representatives of the public interest on the board of directors of the Puerto Rico Health Insurance Administration. Amendments made to PL 103 of 1985, create community advisory councils that will provide input to the decision making process of government facilities whose operation is currently being privatized.

San Juan Health Care System

Model Description:

The capital city of San Juan operates its own health care system, and is fiscally and administratively independent from the Commonwealth Health Department. The San Juan Health Department operates a tertiary care hospital, nine community health centers, and a skilled nursing facility. The nine community health centers are located within their respective catchment areas. Interestingly, the lower socio-economic sector of the San Juan population live in specific areas of high population density. The primary care centers are located within these communities in order to provide greater geographical access.

The burden of cumbersome administrative procedures, coupled with an increasing municipal health care budget, which currently amounts to \$100 million, has moved the San Juan municipal administration to adopt health care reform initiatives, in which the government will also examine privatization strategies as a potential solution.

The San Juan Health Care Model, created through Act 99 of May 25, 1995, is based on the "managed health care" concept with an emphasis on prevention, and designed specifically for the needs of the San Juan population. The model is designed on the principle that the delivery of services and risk contracting should be administered comprehensively by one contractor. The model will have the following characteristics:

1. The San Juan municipality will contract with a private insurer to provide health insurance to the population that uses the municipal health system. The insurer or a private health facility administration corporation will be responsible for the administration and operation of the current health services facilities. In the case of the Dr. José S. Belaval primary health center in Barrio Obrero, it will continue to be managed by the Community Board of Directors. This facility operates under a Section 330 U.S. Public Health Service federal grant. The community board of directors will negotiate reimbursement for health services directly with the insurer.
2. The private contractor will assure that under the new health care model, services will be extended according to the needs of the San Juan residents.
3. The private insurer will present a model that will integrate private and public resources to provide appropriate services to the San Juan population in an

efficient and coordinated manner. They may use different models to organize the delivery of health services.

4. The model contemplates using the nine currently available primary care centers in different areas of San Juan. In the places where currently available facilities do not have the capacity to attend the needs of the population, the insurer will arrange the extension of the supply of services.
5. The private insurer will develop patient care protocols and services, as well as referral mechanisms that will assure the continuity and quality of the services offered at all levels of the system.
6. Each primary health care center should have at least the following professionals:
 - a. one primary care physician per 1,000 population
 - b. one OB/GYN physician per 5,000 users
 - c. one general pediatrician per 5,000 users
 - d. one health educator
 - e. one social worker
 - f. one nutritionist
 - g. one psychologist
 - h. nurses
7. Each primary care center should have available the following services:
 - a. Nursing
 - b. Emergency room
 - c. Outpatient clinics
 - d. Clinical laboratories
 - e. X-rays
 - f. Pharmacy
 - g. Medical records and statistics
 - h. Information system
 - i. Health education
 - j. Social work
 - k. Nutrition counselling
 - l. Family planning
 - m. Maternal and child health

8. Services that are not available at the primary health care center will be contracted by the managed care organization (MCO) with external providers.
9. The user will choose the primary care physician from those available by the MCO. This primary care physician (PCP) will be that person's physician and will coordinate all health care for the patient except in case of an emergency.
10. The emergency room at the primary center would be run by the physicians of that center. The primary care physician of each patient will be notified and will be responsible for providing post-emergency care.
11. The primary care physician will be responsible for the referral of patients to specialist physicians.
12. The user will choose the specialist physician within a network of providers contracted by the insurer.
13. The municipal hospital administrator will guarantee that its teaching and research programs are duly certified.
14. The Antillas Medical Social Center will have available at least 1,075 beds exclusively to attend patients referred by the San Juan municipality for skilled nursing or convalescent care.
15. The MCO will operate and manage directly or subcontract with another party the management of the current facilities: the Diagnostic and Treatment Centers, the Municipal Hospital and the Antillas Medical-Social Center. Any contract negotiated should be approved by the San Juan municipality before it is signed.
16. The private insurer will keep an integrated information system according to the requirements established by the Health Department of San Juan.
17. The services of the full time personnel of the Diagnostic and Treatment Centers, the Municipal Hospital and the Antillas Medical Social Center, will continue to be used. These personnel will be integrated in the new model through negotiations with the San Juan Municipality. Additional personnel will be recruited to provide health care services in an efficient manner.
18. The primary care center will keep a record of each patient and will be responsible for keeping a copy of the results of all services offered in that center or with any other provider.
19. The private insurer will organize a group of physicians that will guarantee the services required at the different levels of the system.

20. The primary care center and the Municipal Hospital will continue to operate categorical programs financed with federal funds according to the proposals and rules established for each program.
21. The manager of the municipal hospital will guarantee licensing and accreditation by the JCAHO, Medicare and any other certifying or accreditation agencies.
22. The primary care center will keep their licences up to date and will fulfill the rules established by the certifying agencies.
23. The Antillas Medical-Social Center will be developed as a rehabilitation center and will update and maintain its licenses and certifications for operation.

Summary of major principles

San Juan Health Care Reform

Universal Coverage

The San Juan Health Care Model will be based on the “managed care” model. This model will guarantee universal coverage for San Juan residents that qualify for the program.

Benefits

The benefits propose to extend beyond the scope of coverage of the state Health Care Reform:

- Include basic, special and catastrophic coverage
- Include contraceptive devices and prescriptions by an authorized physician
- Services to patients with birth defects and hereditary conditions
- Include cornea transplants
- The catastrophic coverage includes:
 - no limits to AIDS patient services
 - medicines for ambulatory treatment
 - specialized trauma services
 - implant of orthopedic devices
 - treatment with growth hormone medication
 - rehabilitation and physical therapy services
 - services, treatment and hospitalization for non-therapeutic abortion
- no deductibles

Access

Financial Barriers: Access would be guaranteed through a comprehensive benefits plan contracted with a Managed Care Organization.

Geographic Access: The Health Care Reform will operate from the existing primary care centers, which are conveniently located throughout the San Juan municipality. Other centers will be made available if the condition requires it. This means that there will be geographical access for everyone.

Financing

The San Juan Health Reform will be financed with Medicaid, municipal and Medicare funds.

Administration and Organization

The San Juan Municipality will select a private MCO to manage the currently available facilities. The MCO will also provide a network of private providers and specialists from which patients can choose. The MCO will hire the personnel currently working at the government medical facilities.

The patient will receive a Card that will entitle him or her to select primary care physicians from the network provided by the MCO. There will not be a pilot study. The Health Reform plan will begin in July of 1995.

Community Participation

None has been contemplated.

Comparison of the Puerto Rico Health Care Reform Initiative with Seven Selected States

As we compare the reform effort in Puerto Rico with those of seven selected states, and present the principal differences between the organization and operation of the Puerto Rico system, it is the objective of this section to provide a description of the system in comparison with those of Arizona, Vermont, Minnesota, Florida, Oregon, Hawaii, and Tennessee. Table 8 contains a summary of the comparisons made between Puerto Rico and these states along the indicators that were employed to describe each: universal coverage, benefits, access-financial and geographic, financing, organization and administration, and community participation. Comparisons are not made on the differences in the cost of coverage because of the differences in the price structures of each states' health care market. Also, the wide disparities between the cost of care in the U.S. mainland and Puerto Rico would make these comparisons of little use to this analysis.

Universal coverage is present in Puerto Rico, San Juan, and six of the seven states, except Arizona, which is attempting to expand coverage through the Arizona Health Care Cost Containment System (AHCCCS), specifically by blending small-group reforms with managed per capita rates so as to reduce the price of plan coverage. The rest of the states fund coverage through Medicaid, Medicare, and private employer sponsored coverage. In Puerto Rico, the Commonwealth government funds 81.0 percent of coverage for the medically indigent, as the federal Medicaid cap is set currently at \$122.5 million. Also, since 93.0 percent of employers in Puerto Rico have less than 100 employees, the local insurance market adjusted early on to small-group premiums issues.

In terms of benefits, these were classified as basic or standard benefits and special or extended benefits. Puerto Rico, San Juan, Oregon, Florida, and Vermont provide both basic and special benefits coverage. Tennessee, Minnesota, and Arizona provide a basic coverage. In the case of Puerto Rico, the insurance product was required to cover all services included in the most comprehensive benefits policy available, and then had preventive care added on. While core public health activities are left to the Commonwealth Department of Health, the PRHIA required comprehensive coverage to all insurance companies competing for the insurance contract. In the case of Oregon, an interesting feature is employed. The state conducted a survey among a sample of the population to rank 665 services desired in the reformed systems benefits coverage. A portion of those services were included in the initial basic coverage, and the remainder were to be added on in January of 1995.

Access is defined along financial as well as geographic considerations. In terms of financial access, only the state of Vermont, in addition to Puerto Rico, took the initiative of prohibiting through legislation that any insurance company deny coverage or charge excessive rates to high-risk groups. In addition it mandated insurers to establish a single insurance pool for all firms

Table 8
Health Care Reforms Indicators by Location:
The Case of Puerto Rico, San Juan, Florida, Oregon, Minnesota,
Vermont, Arizona, Hawaii, and Tennessee

HEALTH CARE REFORM INDICATORS	PUERTO RICO	SAN JUAN	FLORIDA	OREGON	MINNESOTA	VERMONT	ARIZONA	HAWAII	TENNESSEE
UNIVERSAL COVERAGE	YES	YES	YES	YES	YES	YES	NO	YES	YES
BENEFITS									
BASIC COVERAGE	YES	YES	YES	YES	YES	YES	YES	YES	YES
SPECIAL COVERAGE	YES	YES	YES	YES	NO	YES	NO	NO	NO
ACCESS									
FINANCIAL	YES	YES	NO	NO	NO	YES	NO	NO	NO
GEOGRAPHIC	YES	YES	NOT AVAILABLE	YES	NOT AVAILABLE	YES	NO	YES	NO
FINANCING	DEPARTMENT OF HEALTH STATE AND FEDERAL, MEDICAID FUNDS, BLOCK GRANTS, STATE MUNICIPAL FUNDS, LEGISLATIVE FUNDS	MUNICIPALITY AND MEDICAID FUNDS	FEDERAL AND STATE EXISTING FUNDS	PUBLIC AND PRIVATE PARTNERSHIP	CIGARETTE TAX, 2% TAX OF HOSPITAL AND HEALTH CARE PROVIDER, 1% INSURER TAX, EXCLUDE MEDICARE, MEDICAID OR MINNESOTA CARE SERVICES	TAXES, PREMIUMS, OUT OF POCKET EXPENDITURES	FEDERAL FUNDS AND STATE FUNDS CAPITALATED	PARTICIPANTS PAYS ACCORDING TO INCOME LEVEL AND STATE PAYS DIFFERENCES	FEDERAL FUNDING 7% MATCH AND 3% STATE FUNDING WHICH INCLUDE CHARITY
ORGANIZATION AND ADMINISTRATION	PRIHA (ASES) DEPARTMENT OF HEALTH	MANAGED CARE ORGANIZATION SELECTED BY SAN JUAN MUNICIPALITY, INCLUDE PRIVATE PHYSICIANS	FLORIDA HEALTH SECURITY	OREGON HEALTH PLAN ADMINISTRATION	COMMISSION OF HEALTH	VERMONT HEALTH CARE AUTHORITY (VHCA)	ARIZONA HEALTH CARE COST CONTAINMENT SYSTEM (AHCCCS), CONTRACTS HMO	QUEST, MANAGEMENT COOPERATIVE	TENNCARE CONTRACT - MANAGED CARE (PPO OR HMO)
COMMUNITY PARTICIPATION	PARTIAL	NONE	NONE	YES	YES	NO	NONE	NONE	YES

with 50 employees or less, and that premiums could vary no more than 20.0 percent of the community rate. Puerto Rico and the San Juan health model also provide financial access to all of the medically indigent population. The Puerto Rico plan requires copayments for those 50.0 percent above the medically indigent level, ensuring that no copayments will be required of those who qualified as medically indigent prior to the implementation of the reform plan. Copayments will be charged for those between 51-100 percent of the medically indigent level, 101-130, and 131-200 percent. Both the Puerto Rico and San Juan plans will not require copayments or deductibles for preventive and primary care services. This is also the case of the Florida health plan. The remaining states require copayments and deductibles, including primary care and preventive services.

Sources of financing health care reform plans vary widely among the states reviewed, Puerto Rico and San Juan. Some states employ funds to be derived by taxes levied on cigarettes and alcohol. Other states combine funds from Medicaid waivers with local and state income taxes; and still others include employer and beneficiary premium contributions to help fund the plan. Puerto Rico is financing the reform mainly through general revenue taxes, and expects to generate sufficient efficiency to rely less on these funds, and more so, on the ability of the insurance market to achieve efficiencies, as well as generating savings from leasing of government hospital operations. The plan also calls for enrolling groups such as police, public school teachers, and government employees from different agencies. While this enrollment is intended to be implemented gradually, it has met resistance early on by groups who felt they would be trading away greater benefits coverage obtained through years of negotiation. However, projections based on information obtained at this early point in the reform suggest that these expected savings may not materialize, at least through the insurance mechanism currently being implemented. In the case of the San Juan model, funding of the reform plan was to come from a municipal property tax levy. The municipal assembly approved the health reform plan but did not approve the tax. At present, the San Juan municipal government is examining alternatives for funding.

Puerto Rico, San Juan, Oregon, Vermont, and Hawaii have adequate geographical access, defined as access within 30 minutes or 39 miles from home. Tennessee and Arizona do not fulfill this access criteria, and no information was available for Minnesota and Florida. Due to the original regionalization model in Puerto Rico, and Spanish design of health care in the sixteenth century, primary care community health centers are located in each of the Island's 78 municipalities. Also, a network of community hospitals, specialized regional referral centers, and a medical center in San Juan, provide geographical access to inpatient care as well, within the criteria established here.

The organization and administration of state health care reform programs vary. Tennessee and Arizona established organizations with full authority to operate the reform programs. Tennessee established TennCare which manages the process of contracting with providers and insurance companies, very much like the Puerto Rico model, in which the Puerto Rico Health Insurance

Administration, PRHIA, was created by legislation to manage the entire insurance contracting process. Arizona established the Arizona Health Care Cost Containment System AHCCCS which operates parallel to the state health department, and shares some administrative responsibilities with the health department. In Oregon, legislation was passed to create the Oregon Health Plan OHP. The OHP has the responsibility of defining coverage, benefits, and coordinating all aspects of the managed care system. The remaining states have all established organized entities that operate in an advisory capacity to the state on the scope and financing of their respective health care reform programs. The San Juan model, however, is being designed so as to have a single contractor operate the facilities and provide the insurance product, similar to a capitated staff-model HMO.

In Puerto Rico, because a public health care system exists to provide care to the medically indigent, and is now being gradually privatized, the Secretary of the Commonwealth Department of Health retained the authority and responsibility of overseeing the operation of these hospitals, and privatizing their operation as the reform plan moves to each new health region, while the implementation of the insurance program is conducted by an administration created through legislation, PRHIA. It is understood, however, that the Secretary of Health in Puerto Rico is appointed as the constitutional cabinet member responsible for formulating health policy, and overseeing the operation of the entire health care system. In the city of San Juan, the mayor appoints a health director and this person, in turn, will oversee the capital city reform program directly.

Community participation also varies among the states reviewed. Minnesota created a health care commission in 1992 with representation by consumers, employers, health plans, providers, unions, and state agencies. In its health service commission, Oregon integrates the community to specifically decide upon benefits coverage. This is the most direct participation we have observed. Tennessee established the Community Health Agencies (CHA's) through legislation in 1989. There are twelve CHA's in the state and each has a community-based board with representation from each county. CHA's are responsible for organizing the enrollment and delivery of health care.

Although amended legislation calls for community consultation boards in facilities operated by the Puerto Rico Department of Health, these have not been implemented. PRHIA has recently included two community members on its board. However, very little community participation is observed in the reform process. In fact, some of the major criticisms of the reform process were specifically the lack of inclusion of representatives from providers, consumers, employers, and labor groups. The San Juan health model does not contemplate any community participation in the reform plan. Interestingly, community health centers funded by section 329 and 330 of the U.S. Public Health Service Act, and of which nearly 30 programs are operating or proposed in Puerto Rico, and one operates in San Juan, require that a majority of the board of each center be represented by the community. These centers operate as private community-based not-for-profit organizations funded by the U.S. Public Health Service, and represent an excellent example of

integration of a private community enterprise. However, their experience has yet to be integrated in the Puerto Rico Health Care reform initiative.

The remaining states reviewed, Florida, Vermont, Arizona, and Hawaii, do not provide for community participation in their health plans.

The previous comparisons had the objective of describing the health care reform efforts in Puerto Rico, and upon comparison with a sample of states that have shown an aggressive stance on reform, provide a context within which future federal reform initiatives can act upon Puerto Rico in an informed manner. While the historical evolution of health care in Puerto Rico has dictated a policy direction in which the government has acted as a direct provider of care, different to the experience in the mainland United States, the concerns over cost, quality, access, and outcomes are the same. Even though the attempts at establishing a regionalized system of integrated health care have not been successful, mainly due to political issues, and the presence of a rapidly developing private sector, the model remains as a viable instrument to establish a system of coordinated care very much in the manner in which objectives are being sought in current managed care based reform initiatives in the United States.

Discussion:

The failure to enact national health care reform legislation has led many to believe that at best, the federal government will follow an incremental approach in the short-run. Meanwhile, we are observing an increase in the number of states that have begun independent efforts to reform their own state health care systems. Similar to the federal plan, these states are following two principal routes: creating strong incentives for reorganizing the private health care delivery system, mainly into managed care arrangements; and, providing health insurance to the uninsured through these managed care plans.

The case of Puerto Rico is different in several ways. The government was the sole provider of health care up until the mid-1940's when a private medical and hospital sector emerged. And, from the early 1960's the government became the sole provider of health care to the medically-indigent population. As a result, Puerto Rico is the only jurisdiction within the United States which has two distinct health care systems; one for the privately insured, and one for the government insured. The dual nature of this system requires that reform strategies be examined on the basis of what will be done in each sector, before attempting to resolve issues of coverage and financing, altogether. Also, the fact that the medically indigent in Puerto Rico are classified also as poor, indicates a structural difference between the population that uses the private sector as their usual source of health care, and the population that uses the public sector. The Puerto Rico Planning Board classifies 59.0 percent of the population as poor, while 45.0 percent are classified as medically indigent. Therefore, the medically indigent population are for the most part poor. This becomes an important issue when attempting to integrate both populations into a single system of care.

The socioeconomic differences between the medically indigent and private sector populations in Puerto Rico cannot be explained by insurance status, but rather through other socioeconomic variables such as, education, health behavior and beliefs, and employment, among others. These differences have in fact been determinant in the design of each of the two health sectors. While the private sector is designed to essentially provide acute care through a technology-intensive system, the public sector, while also offering this scope of care, includes support services for health education, social services, nutrition counseling, and outreach activities. These services are essential to promote patient compliance with treatment and appropriate use of services.

The differences observed in the scope of care in the public and private sectors can be seen in the private insurance market. This market is designed to cover risk defined in terms of clinical acute care treatment. Clinical preventive services, for the most part, are not covered. However, the public insurance system does cover these services, and they are available in primary care centers. The new health insurance program currently being implemented by the Puerto Rico Health Insurance Administration includes coverage for clinical preventive care within its scope of

coverage of primary care. Also, no deductibles are to be charged for these services as an incentive to increasing their use.

The question remains, however, if core public health services are not covered by PRHIA, who will provide them and how will the coordination between these services and clinical preventive services covered by the plan be coordinated? This is an issue also present in most of the state health care reform efforts underway. At issue is whether in managed care arrangements the state can contract with managed care organizations to provide these services as part of the scope of coverage. The issue arises from the fact that as managed care plans are employed by the state to reorganize the private sector, state health departments are left with the responsibility of providing core public health activities.

In Puerto Rico the issue is even greater since community primary care centers which have always provided these services become privatized, and as a result, services contracted through private insurance coverage is limited to clinical preventive care and does not include core public health activities. These services then become the responsibility of the Commonwealth Health Department, which must now search for alternatives to deliver these services.

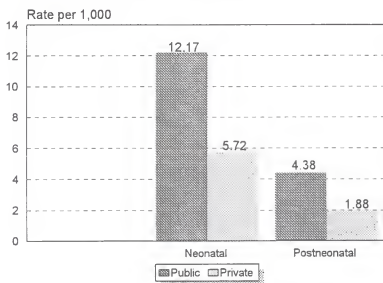
The previous discussion evolves around the strategy of reorganizing health care delivery systems through health insurance plans. As these plans rely on insurance-driven strategies, the reform process becomes one of defining access, coverage, and benefits through an insurance market instrument. Puerto Rico has decided to privatize the administration and operation of its government health care facilities, in effect attempting to create a single provider system, and then provide a private health insurance product to the medically indigent population. Two questions regarding these reform strategies remain unanswered. First, can it be expected that the medically indigent population behave similar to the private sector population? This must be answered both in terms of utilization patterns and compliance with care delivered in scenarios very different to those employed for such a long time. Second, can it be expected that by financing care through an insurance-driven risk contracting program, the cost of health care will actually decrease? A third question may also be formulated regarding the issue of outcomes related to a reformed system. Can it be expected that health status indicators will improve by virtue of privatizing the delivery of public health care, and adding the private sector as a choice for the medically indigent in Puerto Rico?

This last question, which is perhaps the most important, as it has to do with outcomes, is most probably to be answered negatively. Take for example the case of neonatal and postneonatal mortality cited in the first report of this project (see Figure 4)³. Data show that these indicators present twice the mortality in the public sector than in the private sector. The argument that

3 Coordinating Health care Reform with the U.S. Territories: The case of Puerto Rico, Progress Report #1.

differences in the quality of care between the private and public health care sectors explain these differences in mortality has not been supported with evidence. Therefore it cannot be concluded that by moving the medically indigent from the public sector to the private sector these two indicators will then decrease and approximate the behavior of the private sector. We are aware, that different social, economic, and behavioral risk factors largely explain these differences beyond the singular issue of access to quality clinical care. It is therefore necessary to examine the impact of attracting well trained providers into the organizational structure of the public sector, and reduce the income differences between the two systems as an incentive for this transfer, as well as privatizing the management of these public facilities. This would provide the opportunity of renewing the managerial decision process within the Commonwealth Department of Health, while maintaining and improving the scope and delivery of public health/medical care to the medically indigent.

Figure 4
Neonatal and Postneonatal Mortality by Health Sector
Puerto Rico, 1990



Data Source: Office Health Statistics, AFASS.

This discussion is based on the legal underpinnings on which health care reform is being conducted in Puerto Rico. Specifically, the Puerto Rico Health Insurance Code prohibits insurance companies from organizing and engaging in the delivery of health services. As such, system integration goes as far as a formal contract between an insurer and providers, brought together by the government through its brokering entity, the Puerto Rico Health Insurance Administration (PRHIA). If the commonwealth government should decide to reform the insurance code to this effect, it would allow for additional options for system integration. This will be addressed in the final section on recommendations.

Conclusions:

The medically indigent population in Puerto Rico is heavily dependent upon government subsidies and facilities to obtain access to health care. Current and future health care needs will continue to be met by public financing, because the private sector is not providing sufficient jobs with insurance benefits, or adequate income for many employees to purchase health insurance. This will compromise an already critical fiscal situation for the commonwealth government, in which the increase in public spending for health care is growing at twice the rate of government revenues. Current health care reform proposals in the mainland United States envision private sector and market oriented solutions, neither anticipating nor considering the implications of their solutions on Puerto Rico and other communities with a significant public sector role, and a large medically indigent population that lies below the poverty level.

The original commitment of the Health Department was to test the reform plan through a relatively small pilot project, insuring a population of approximately 50,000 enrollees. The plan has been extended to an additional three regions of the total eight regions, and has more than tripled the size of the enrollee population, with a comprehensive evaluation yet to be conducted.

The current cost of purchasing health insurance for the medically indigent, exceeds the total expenditures the Health Department incurs at present under its self-funded model, assuming the cost of premiums remains the same when projected to the 1.7 million total enrollees. Thus, the argument that providing private insurance coverage would make the cost of care cheaper, and would reduce government expenditures has not materialized. This excludes the additional cost of operating public health care facilities that the health department is not able to lease to private contractors.

No epidemiologic profile of the population to be insured was conducted to determine health care needs in the different health regions. The needs assessment was based on mortality data, since morbidity data had not been systematically collected. Therefore, it remains difficult to identify illness patterns and understand the relationship between specific risk factors and illness. This will obviously have a negative effect on the development of primary care interventions. Also, the insurance program provided access to the medically indigent to a large array of private health care providers in different areas and regions, without clearly defining the guidelines, information systems support, and provider accountability to enrollees. This immediately created problems in coordinating the process of care as called for in the plan.

Much of this could be resolved with an integrated information system that would facilitate patient referral and tracking, utilization review, and monitoring of the appropriateness of utilization for quality purposes. This system, however, has not been developed, and should have been high on the list of priorities. This issue needs to be highlighted, especially since one of the principal problems Puerto Rico has historically confronted when requesting reimbursement increases

from Medicare, and increases in the cap on Medicaid, is the lack of accurate, timely, and well-documented information for review by appropriate federal programs at HCFA. It is clear that establishing this information system is critical to the success of health care reform. It is instrumental that it be established to support the federal review process as well.

Current U.S. mainland state health care reform initiatives focus on restructuring the health insurance market, but depend on the delivery of health care by the private sector. In following this trend, Puerto Rico must examine the potential effects of privatization of health care on the Island populations' health status, as well as the economy. The fact that the medically indigent population is poor creates an imminent problem of adverse selection, as this population is at a higher health and utilization risk than the population that traditionally purchases private health insurance. Consequently, the cost of insurance premiums will increase dramatically to absorb the increase in cost produced by the added population of medically indigent consumers. It may then become necessary to regulate the insurance market by requiring a community rate. The key here is to determine how much private sector rates might increase if public beneficiaries were included in the community pool. The impact of this community rate on employers and current purchasers of private health insurance must be analyzed.

As the population continues to age, an increase in utilization of services will be observed among the elderly population. The Puerto Rico Health Insurance Administration (PRHIA) is contemplating the possibility of providing part B Medicare coverage to the elderly population that currently lacks the coverage. Plans also call for extending coverage for prescription drugs and dental care. This will draw the elderly to the private sector via the PRHIA insurance plan. With additional coverage and benefits, an increase in health care utilization is imminent, and so will the increase in expenditures. The effect of this policy requires close scrutiny.

Reform plans based on insurance-driven market approaches in Puerto Rico will rely on subsidy arrangements. A disproportionate share of Puerto Rican families could qualify for subsidy assistance if not a 100.0 percent subsidy for the purchase of insurance. At present no analysis has been conducted to measure the magnitude of subsidies under different reform scenarios. This is a critical analysis, given the potential economic impact on employers, the commonwealth government, providers, and the federal government. With fiscal retrenchment on the current federal agenda, the issue becomes even more critical, as Puerto Rico will depend on federal transfers to cover the population that qualifies for assistance.

The exclusion of physicians in the design of the health care reform model may have an effect on their acceptance of contracting arrangements. Physicians in Puerto Rico are very close to establishing the Puerto Rico College of Physicians. As legislated, colleges in Puerto Rico legally require members of a profession to join as a condition for practicing. This will create a powerful lobby that is certain to exert great pressure in the rates negotiation process.

The effect of health care reform on health professions education and training was not studied during the design of the reform model; especially graduate medical education. This is a critical issue because practically all physicians trained in Puerto Rico, train in public hospitals and health care facilities. As these facilities become privatized it is uncertain how training will be conducted and financed.

For the past 40 years, the Commonwealth Department of Health has maintained a mutually beneficial relationship within the School of Medicine of the University of Puerto Rico. Through this relationship the Department of Health has provided the health care facilities to serve as training scenarios, in exchange for a low-cost supply of medical care for the medically indigent. Construction subsidies and graduate medical education funds provided the incentives to train sub-specialty, acute-care physicians. The orientation of medical care toward primary care, dictated in large part by the need for a cost-effective reform plan, is forcing both the Commonwealth Health Department and the Commonwealth Medical School to reassess their mission and goals, in both the supply of primary care physicians and facilities for training these and other health care professionals.

As a final comment, while clearly most health care reform initiatives currently being implemented concentrate on searching for solutions to the issue of access, mainly through insurance market strategies, few if any contemplate the issues of structuring a delivery system that is responsive to the specific needs of the populations to be served. Only recently has the literature begun to ask questions regarding appropriate models for fulfilling the health care needs of lower socioeconomic population groups under health care reform. It is known that these populations require significant amounts of support services such as social work, community outreach, nutrition counseling, and health education, in order to both use medical resources appropriately and improve their health.

By concentrating on insurance reform, we run the risk of overlooking these necessary services that lie outside of the scope of insurance-driven managed care systems. A poorly educated and economically depressed population cannot be expected to make informed choices regarding their health care needs. Concurrently, providers with little or no experience in managing these populations may not be prepared to identify high-risk behaviors nor the need for trained professionals to provide support to the care process in a comprehensive manner. This is precisely one of the principal objectives of managed care programs, and one which has not been developed to support the necessary close relationship between providers and payors. If we add to this the fact that most insurance plans do not provide coverage for these services and have no actuarial experience in underwriting their coverage, they may be overlooked altogether. Needless to say, the health consequences of not including these services can be devastating in their effect of sharply increasing utilization and expenditures associated with providing care for this population. As such, it is very important to assess the financial and health impacts of channeling the medically indigent population in Puerto Rico to private physician practices in the community, especially when no coordination is made to provide clinical preventive services and core public health activities.

Key Policy Issues for Health Care Reform in Puerto Rico

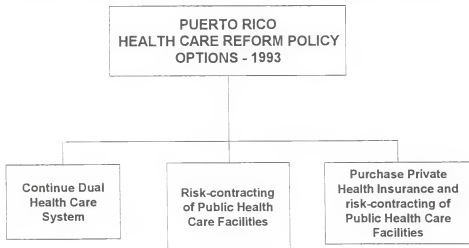
Integrating the resources of the public and private health care sectors in Puerto Rico, while requiring a monumental effort, is a decision that had to be made. Escalating costs of providing health care have resulted from the lack of coordination and planning by both the Commonwealth Health Department and the private sector. This, in turn, has resulted in duplicate health care facilities, technology, and human resources, as well as an uneven distribution of these resources that affects principally the medically indigent population, which is served mainly by the public sector. The decision by the commonwealth administration to initiate health care reform by providing private health insurance coverage to the medically indigent, and privatizing the operation of public health care facilities, is based on the assumptions that quality and efficiency are greater in the private health care sector, and thus by privatizing, these deficiencies may be corrected.

In addressing health care reform, the commonwealth government faced essentially three policy options:

1. continue operating a dual health care system, in which the government would maintain its role as provider through its public health care infrastructure;
2. privatize the public health care system by purchasing private health insurance coverage for the medically indigent, and privatizing the operation of its health care facilities;
3. privatize the operation of public health care facilities through risk-contracting mechanisms.

Figure 5 illustrates the three policy options.

Figure 5
Puerto Rico Health Care Reform Policy Options 1993



Under the policy option in which the government continues to finance and provide health care through its public health care infrastructure, the assumption is that it can effectively manage its operation to provide quality care in a cost-effective manner. This policy is the equivalent of self-insuring; the government will continue its role of providing care and will monitor both quality and cost in order to achieve a cost-effective operation of its health system.

Several reasons preclude this policy option from being adopted. As the private health care sector matured during the early 1970's, it becomes a competitor of the public health care sector. Private sector access to capital for financing construction and technology acquisition allowed private hospital and medical providers to grow and attract patients with private health insurance. This left the medically indigent under the care of the public health care system.

Salaries became more competitive in the private sector. Also, private health insurance moved nearly 75.0 percent of physicians to generate their principal source of income in the private sector. Ironically, while Medicare helped finance the cost of graduate medical education, physicians in Puerto Rico are trained in the public sector, but then practice in larger proportion in the private sector, which also draws the larger portion of Medicare beneficiaries.

An additional reason for the loss of competitiveness by the public health care sector is that it became, as other government agencies did, a source of massive employment. The cost of payroll operating costs precluded both efficiency as well as the availability of funds to acquire technology and supplies. The Commonwealth Health Department observed a major increase in the cost of operating its health system.

Certificate of Need legislation was approved in 1979 to help curb the cost of health care attributed to excessive technology acquisition. Again, the fact that privately-insurance patients and government-insured patients were cared for by different sectors, resulted in duplicate technology and facilities. Thus, the proliferation of hospital acute care beds, community laboratories, community pharmacies, and CT Scanners and magnetic resonance imaging (MRI) systems, continued despite this legislation.

A decision by the commonwealth government to continue as a provider of health care would require solutions to these issues. And, the sole issue of closing hospital beds to correct for an excess of 30-35 percent of acute care beds in both sectors will not be resolved soon, as there are powerful forces that operate both in the public sector, e.g., employment, and the private sector, e.g., investment and competition. In any case, this policy option would constitute a long-term solution. The political scenario that brought health care reform to the spotlight demands a policy that is able to respond in the short-run.

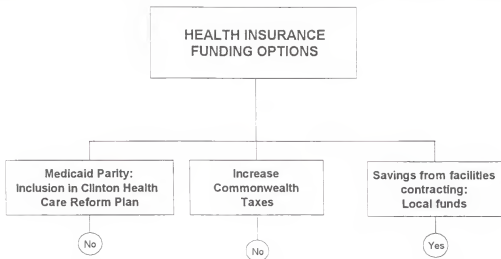
A second policy option calls for the Commonwealth Health Department to privatize the delivery of health care through risk-contracts. Under this arrangement, the government would contract

with private management firms to operate public health care facilities based on either a per capita payment or a block grant, both risk-adjusted to generate efficiency to the Health Department. This policy is consistent with the current need for the government of reducing its budget. By contracting with private management firms, the government provides employment security without having spend as much. The management firm would assume the risk of generating a profit by achieving greater efficiency in the operation of the facility, and attract privately-insured patients. While the adoption of this policy would be able to produce a short-run improvement in efficiency, and thus at least slow down the increase in total health care costs, it does not resolve the issue of freedom of choice offered by the administration as an electoral campaign promise. This offer of freedom of choice was packaged in a promise to provide private health insurance to the medically indigent, which goes beyond the scope of this option.

The third policy option considered by the administration consisted of a combination of purchasing private health insurance for the medically indigent, and adopting the second policy option discussed, which is to contract the operation of public health facilities to private management firms on a risk basis. This option, which was originally proposed and adopted in mid-1993 fulfills the campaign promise of private health insurance for the medically indigent.

Given the adoption of this policy, the issue becomes one of paying for the health insurance benefit. It was assumed that savings from not having to operate facilities now contracted, and the inclusion of Puerto Rico in United States health care reform, the Clinton Plan, would generate enough money to fund the insurance benefit. Figure 6 illustrates funding options available.

Figure 6
Puerto Rico Health Care Reform Through Private Health Insurance



It is by now known that President Clinton's sweeping health care reform plan was not approved by Congress. As such, it cannot be expected that parity under the Medicaid program, or even a

substantial increase in funds, will occur in the short-run. Having relied heavily on the Clinton Plan has severely affected Commonwealth health care reform.

Another source of income for the Commonwealth would be to increase personal and corporate income taxes to pay for the insurance benefit. However, in late 1994, the commonwealth enacted tax reform which actually reduced income tax rates across the board. Therefore, it does not appear likely that any increase would be enacted, specifically going into an election year.

Thus, funding the insurance benefit will rely on Commonwealth funds. With a tight credit situation and current funds already allocated to other agencies, the available option appears to be a requirement by the Commonwealth Health Department that all health insurance companies community-rate in order to bring government costs down. This will have the immediate effect of increasing employer contributions to health insurance benefits without the expected subsidies that were to come from the Clinton health care reform plan. The fact that the medically indigent in Puerto Rico reflect greater health care needs make this population an adversely selected group in terms of health insurance. Thus, the potential need for community rating employer-financed insurance is imminent.

An additional concern with the current reform plan is that the privatization of public health care facilities is not an easy task. The construction of public health care facilities is financed through public bond issues. Therefore, these facilities belong to bondholders and not the Health Department. This becomes an issue when the lease amount set by the Health Department exceeds the projected revenues of the potential contract bidder. At this point, the government cannot lower the lease amount below the outstanding value of the debt with bondholders. It then becomes a decision of either subsidizing the operation in order to make the lease a viable venture, or continue to operate the facility through the Health Department.

While precise measures of the performance to date of Puerto Rico's health reform plan have not been conducted, it is clear from the scenarios presented here that the cost of its implementation will soon exceed the government's ability to pay for it. Initiating such an ambitious reform plan relying on federal subsidies and Medicaid parity that did not materialize, has severely compromised not only the success of the reform plan, but the fiscal capacity of the Commonwealth to continue the implementation of the plan.

Recommendations:

In this final section of this report, we present our recommendations as to the direction health care reform might take in Puerto Rico. We begin with the original recommendations prior to initiation of the reform in 1993, and follow through with current recommendations, based on the events of the last two years. The recommendations are framed within three criteria: the need for efficiency; the political viability of the recommendations; and, the potential for short-term results.

- The Puerto Rico Insurance Code must be reformed to allow health insurance companies to become health care providers.
- Require that contractors assume responsibility for both inpatient care facility and primary care centers; and be required to organize as a fully-integrated delivery system.
- The government may also contract with provider organizations that integrate an insurance product to their provider system.
- The Puerto Rico Health Insurance Administration (PRHIA) should become a conduit for negotiating payment rates; and, assume the responsibility for monitoring the utilization and quality of the health care provided.
- An integrated health information system must be designed to collect, analyze, and publish results of continuous monitoring of the reformed health care system. This system shall be responsibility of the Commonwealth Health Department; it will be coordinated centrally, and operated as a decentralized and fully accessible information network.

The single most important issue drawn from the conclusions of this report, and the analysis of the events that have transcended since Commonwealth health care reform began, is how the commonwealth will deal with the current fiscal crisis in the immediate future. With federal subsidies from United States health reform not materializing; no major increase in the Medicaid cap in sight; and the difficulty in obtaining an increase in reimbursement for hospital care provided to Medicare beneficiaries, financing health care reform will rely principally on Commonwealth funds. Therefore, solutions must be generated from within the system.

Using the health insurance market as the cornerstone of health care reform has provided the medically indigent of Puerto Rico, for the first time, the means to gain access to a large array of physician and hospital providers in the private sector. It could be argued that this is a positive effect considering the greater proportion of physicians that practice in the private sector. In this sense, the government fulfilled a commitment to offer freedom of choice of providers to the medically indigent.

However, problems in controlling the increase in government expenditures remain. On the one hand, health insurance is expensive, and will at the least, equal the government's current expenditures as a self-funded entity. Administrative costs incurred by insurance companies in managing the insurance benefit for the medically indigent run as high as 15.0 percent of the total fund contracted. Also, the earnings expectation of private insurance companies make the product more expensive.

On the other hand, the design of the reform plan is to allow medically indigent enrollees to purchase health care in the private sector. This brings us to the issue of how to make the privatization of public health care facilities a financially viable venture for prospective contractors, who must compete against the incentive to draw patients away from the facilities they are expected to manage, and at a high risk.

The recommendations to be made at present are different than those made during the design of the reform plan, and which were not considered. They are stated here in order to relate them to the events of the previous two years, and how these events affect available options within the fiscal and political scenario of the reform.

The original recommendation of the principal investigator of this project was to privatize the operation of the Commonwealth Health Department's health care facilities. This decision would have the effect of removing the Health Department from the direct operation of the facilities, and assume a normative role of ensuring quality and monitoring utilization. In doing so, private contractors would be allowed sufficient time, at least 18-24 months, to convert the facilities into competitive ventures, mainly by recruiting physicians and other health professionals, and marketing services to private patients. There is precedent of this type of arrangement in Puerto Rico.

This recommendation is consistent with the more general call for integrating the public and private health care sectors in order to avoid the high cost of duplicate resources in a dual health system, as described earlier. After allowing contracted public facilities to adapt to a competitive scenario, the Health Department could then decide to purchase health insurance for the medically indigent and offer a true choice of private providers.

Alternatively, the Health Department could have contracted these facilities to insurance companies and allow for the creation of managed care plans, e.g. staff-model HMO's. In order to do this, however, the Puerto Rico Insurance Code must be reformed to change the provision that prohibits insurance companies from becoming providers. At present, the recommendation remains that it be reformed to allow such contracting to occur. Just as hospitals are allowed to create and market HMO-type health plans, insurance companies should be allowed to compete as integrated health care delivery systems.

The advantage of creating a managed care approach with public health care facilities is that Puerto Rico has at least one community primary care center in each of the 78 municipalities of the Island. This makes it easier for hospitals to form integrated networks with these centers, and manage the full continuum of care. As on the United State mainland, these community health centers are equipped with physician office space, an emergency room, as well as pharmacy, laboratory, and radiology services. They also provide core public health services, such as, social work, health education, nutrition counseling and outreach, which are critical for managing underserved high-risk populations.

Historically, these centers have been severely understaffed and have not had access to sufficient resources for equipment and supplies. Allowing them to integrate with hospitals under private contracts would also make them more competitive with community based physician practices. A clear trend today is to deliver comprehensive primary care in these centers under capitated arrangements.

As described earlier, the privatization of public health care facilities was conducted simultaneously with the contracting of the insurance benefit in mid-1993. Therefore, the adjustment period to be allowed contracted facilities could not be done. To illustrate this point, Blue Cross of Puerto Rico, which obtained the original bid to sell insurance for the medically indigent in 1993, set up its own capitated network with physician practices to compete with the providers that agreed to enroll medically indigent patients, who had just received government insurance coverage purchased through Blue Cross itself. The immediate effect was of these patients enrolling in the Blue Cross centers, and drastically reducing the size of the enrollment to the contracted public primary care centers. As such, patients referred by Blue Cross primary care centers for inpatient care, were diverted to private hospitals in which their physicians practice, and not to privatized public hospitals.

The Commonwealth Health Department must provide the means for insurers, providers, and management contractors to become competitive. The Puerto Rico Insurance Code must be reformed to allow insurance companies to become health care providers. Currently, provider organizations are allowed to sell their own health insurance plan to enrollees as health maintenance organizations (HMO's). Companies who obtain contractors to operate health care facilities should also be allowed to provide a health plan similar to those offered currently by several hospitals throughout the Island. These changes would create a more competitive health care market place, such as that envisioned by the commonwealth government. The new organizations, which will contract with the Commonwealth Health Department, would then compete on their ability to recruit physicians and other health care professionals, reduce their plan administration costs, and build strong community-based primary care networks.

The commonwealth Health Department will require that any organization bidding to operate public health care facilities, will agree to assume responsibility of both the geographic area's hospital

and public primary care centers. This will guarantee that enrollees receive comprehensive care in a system that includes a full continuum of primary, general acute, and tertiary care, operated by a single entity.

The Commonwealth Health Department will also require all contractors to include core public health services as part of primary care; including nutrition counselling, health education, social work, immunizations, and community outreach. These services have been found to improve the effectiveness of medical care for people from low socioeconomic strata. They have been part of the design of community primary care centers in Puerto Rico since 1954.

The Puerto Rico Health Insurance Administration (PRHIA) was conceived as a government broker that purchases health insurance for the medically indigent through private insurance companies that compete on benefits coverage and price. In the competitive scenario we have described as our recommendation, PRHIA would expand its role to evaluate prospective contractors who will provide health care in addition to providing an insurance product. The ability and capacity of these organizations to become fully-integrated networks would be a principal role for PRHIA to assess. This obviously calls for a comprehensive health information infrastructure that would enable PRHIA to fulfill this task, and continuously monitor patterns of utilization, cost, and quality of care delivered by privatizing contractors. The development of this information system, which would be coordinated by PRHIA, and operated through a decentralized access network is the final recommendation of this report.

Specific recommendations on the development of this information system were originally formulated by an expert panel in 1992 by the General Health Council, a policy advisory body in the Commonwealth Health Department. They were again presented to the new government administration in 1993, during the design process of health care reform. To date, however, these recommendations have not been implemented, nor has any other option been considered to redesign the government's information system.

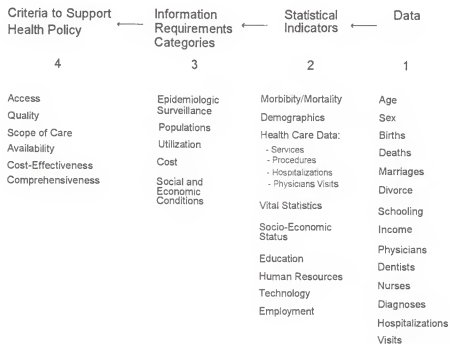
Our recommendations are based on the fact that an information system already exists in the Commonwealth Health Department, and needs to be redeveloped, not replaced. Thus, the guiding principles recommended are as follows:

- the information system will operate through a uniform reporting system for all participants (providers, insurers, etc.);
- the system will provide for measuring and monitoring quality, as required by commonwealth, federal, and professional accreditation bodies;
- the system must be capable of communicating with federal information networks for reporting and documentation purposes;

- this health information system must be maintained by the Commonwealth Health Department as its principal tool for monitoring utilization and quality through a privatized health care system. As such, this system will be considered part of the Department's permanent infrastructure, and will not be subject to budgetary cutbacks.

The information system to be designed should contain the elements describes in Figure 7:

Figure 7
Elements of an Information System to Support Health Care Delivery Decisions in the Commonwealth of Puerto Rico



The recommendations presented in this report were made taking into account the political scenario within health care reform that is evolving in Puerto Rico, namely, the certainty that the private health insurance benefit cannot be taken away; fiscal viability, that is, that the cost of implementing health care reform must be lower than the current cost of delivering health care through a public system; and, that there must be short-term improvements in enrollee satisfaction measures, as well as expenditure reductions for the commonwealth government.

Our recommendations are therefore oriented to advancing effective health care reform in Puerto Rico, while preserving the principal government policy of privatizing its role in delivering health care. It is the purpose of the Commonwealth government to limit its role to that of purchasing quality health care and monitoring its delivery, and avoid the need to establish a rate-setting commission to regulate insurance payment rates. Using these recommendations as guidelines should preserve that role.

Appendixes

APPENDICES INDEX

		Page
Appendix A	Arizona Health Care Reform Summary of major principles of Arizona	A-1 A-10
Appendix B	Florida Health Care Reform Summary of major principles of Florida	B-1 B-21
Appendix C	Hawaii Health Care Reform Summary of major principles of Hawaii	C-1 C-18
Appendix D	Minnesota Health Care Reform Summary of major principles of Minnesota	D-1
Appendix E	Oregon Health Care Reform Summary of major principles of Oregon	E-1
Appendix F	Tennessee Health Care Reform Summary of major principles of Tennessee	F-1 F-7
Appendix G	Vermont Health Care Reform Summary of major principles of Vermont	G-1 G-15

Appendix A

Arizona Health Care Reform

Background

The most notable aspect of Arizona's health system is the Arizona Health Care Cost Containment System (AHCCCS), a unique competitively bid, capitated health program implemented in October 1982. It is an alternative to traditional Medicaid coverage for acute medical care, which presents fundamental changes in the way health care services are delivered to the indigent population. The State of Arizona received federal funding as a demonstration project (for 3 years) from the Health Care Financing Administration (HCFA) with waivers to allow for demonstration of the plan. In 1994, HCFA approved an extension until September 30, 1997.

Arizona was the first state to have a statewide Medicaid managed care system, requiring all Medicaid participants to join HMO's. The AHCCCS has several innovative features that differentiate it from the fee - for - service Medicaid programs. In a fee - for - service payment system, beneficiaries are free to choose from a variety of providers. Under the AHCCCS program, beneficiaries are assigned to a particular "gatekeeper" who manages their medical care, and beneficiaries are required to pay small copayments for the services they receive.

Benefits covered include most acute care services: hospital, physician, laboratory, x-ray, medical supplies, pharmacy, and emergency services. Measures to improve access under Medicaid were enacted in 1993 through new laws allowing nurse practitioners and physician assistants to serve as primary care practitioners. Skilled nursing facility and home health services are not included in the AHCCCS. No universal access proposals are being considered, although the legislature has been considering ways to encourage employers to cover their workers.

The State uses prepaid health plans to deliver services to the indigent population. It selects these plans through a competitive bidding process under which winning bidders are paid a capitated amount (their bid rate). The State is also paid on a prepaid capitated basis by the Federal Government.

Arizona has chosen to focus on insurance as one means of improving access in recent years. In 1993, the state adopted an initiative to develop voluntary purchasing alliances for the small group market. The legislature approved a measure to regulate small group insurance plans as accountable health plans and promote managed care in these plans. This measure blends small group reforms (laws regulating insurers so as to make it easier for small businesses to buy coverage for their workers, including guaranteed issue and renewal,

portability and restrictions) and a requirement that carriers phase-in managed care by offering providers per capita rates and therefore lower-price plans.

In 1994, Arizona directed its attention to targeted reorganization of the health care delivery system. New enactments extend the Arizona State Hospital Advisory Board until July 1, 2004, and expand the authority of hospital districts to include medical and urgent care clinics. Previously, hospital districts could only operate hospitals and ambulance services. The authority of the Director of Health has also been expanded under new legislation, to include development of standards for the selection of health care demonstration projects in the state. Still another 1994 enactment is aimed at improving health services in rural areas, to allow for the creation of rural health service districts in counties with a population under 400,000. The new law also directs the Department of Health Services to evaluate and report every two years on issues pertaining to medically underserved areas (MUAs) in the state and to revise the definition of the state's MUAs to designate them according to federal standards.

Arizona has instituted other changes aimed at improving care and controlling costs. In 1993, an outcome report showed that AHCCCS was able to contain cost increases by 44.1% during the first nine years of the program, when compared with a traditional Medicaid program. In 1994, Arizona also extended its uniform billing and claims form system to encompass all hospitals (only hospitals with 50 or more inpatient beds were required to use uniform billing forms) and added penalties for lack of compliance.

AHCCCS Program Administration

The original legislation required that most of the program's administrative functions be contracted to a private Administration, but the state has now assumed this function, although it has retained the option to contract out specific functions.

The AHCCCS Division selected MCAUTO System Group Inc. (MSGI) as the program Administrator. The contract period was for 39 months. During that time, the private Administrator's responsibilities included:

- Claims and encounter data processing - Paying claims for services delivered, processing encounter data from providers, making capitation payments and producing utilization reports to support the management of the program.
- Enrollment - Providing training to counties on eligibility, requesting eligibles to choose a plan, or assigning to a particular plan those who are eligible but not enrolled.

- Quality assurance - Assisting plans in establishing quality assurance programs, and identifying potential cases of underutilization of services.

Costs by MSGI increased from the original bid of \$11 million for the 39-month contract period to an estimated \$30 million in February 1984. Contract disputes between the State Attorney General and MSGI led MSGI to notify the State on February 14, 1984, that, if the contract disputes were not resolved within 30 days, MSGI would terminate the contract. The State assumed the responsibility for administering the program as of March 14, 1984. The system transfer was accomplished smoothly, and most of the MSGI personnel accepted positions with the State.

Eligibility and Enrollment

Prior to AHCCCS, each county could establish its own eligibility requirements and procedures, so this criteria as well as coverage, differed from county to county. Implementation of the AHCCCS program required that the counties develop, within a short time, a capacity to determine in a uniform manner the eligibility of the medically indigent and the medically needy (MI/MN) cases. These are poor individuals who met Arizona requirements for eligibility for AHCCCS services, but who are not categorically eligible. Determination for categorically eligible groups -Aid to Families with Dependent Children, and Supplemental Security Income recipients (AFDC & SSI) was the responsibility of the Arizona Department of Economic Security and Social Security Administration.

Eligibility for AHCCCS includes all categorically eligible groups under Medicaid and other indigent citizens. Employers with 40 or fewer employees are eligible to participate in Health care Group by purchasing health care for their employees and dependents through the participating AHCCCS Health Plans.

The responsibility for enrolling eligibles is separate from eligibility determination and, for the first 18 months of the program, was handled by the private Administrator. Over 56% of all Medicaid members exercise their right to select a health plan. If the member does not select it, AHCCCS will automatically assign the person to a health plan in the appropriate zip code where the member resides. The state funded population does not have the same freedom of choice and is assigned to a health plan, but have the option to choose from the available primary care physicians or practitioners.

As a whole, the problems in eligibility and enrollment have proven to be a major source of difficulty in the implementation of AHCCCS. Delays in enrolling persons who had been determined to be eligible was a major problem during the first 18 months, contributing to large unanticipated fee-for-service expenditures. These problems led to increased costs; deviated attention from other features that needed implementation, such as encounter data

and quality assurance procedures; and created tensions among counties, the private Administrator, the State, and providers. Changes in the enrollment process were made.

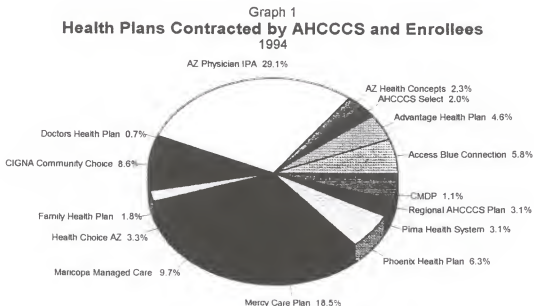
Bidding process

Contracts for the provision of services are awarded to health plans. Plans in turn, have arrangements with individual physicians, hospitals, and other providers to furnish the necessary services. Plans are paid a capitation according to their winning bid rate, for each eligibility category in each service area (normally a county). Winning bidders are those with the lowest bid in each service area.

The overall average amount reimbursed per enrolled Federal beneficiary in the first year of the program was approximately \$76. During the second year, a few changes were made in the contracts, adding dentures, transportation, prescription lenses, hearing aids, and dental services. The overall average amount reimbursed per enrolled beneficiary in the second year of the program was approximately \$81.

Description of plans and mode of payment

There were 15 Health Plans contracted by AHCCCS in 1994 for the acute care program (Graph 1). The organizations and affiliations of the Health Plans vary widely. Of the 15 Health Plans, three provide health care services to the private sector; three are hospital-owned or affiliated; one is operated by county governments; the remaining were formed specifically to serve the AHCCCS population.

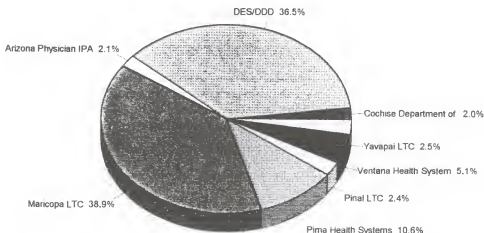


Source: Overview of the Arizona Health Care Cost Containment System, January 1995.

AHCCCS allows all Medicaid members to choose a Health Plan from the available Health Plans in their zip code area and then choose a primary care physician or primary care practitioner, such as a nurse practitioner or physician assistant, who is affiliated with that Health Plan.

At present, Arizona Long Term Care Services (ALTCs) services are coordinated and managed by nine Program Contractors, which act in the same capacity as the AHCCCS Health Plans (Graph 2). Only one operates in each county and members are enrolled in their county of residence. Program Contractors are paid on a capitation basis, the average statewide rate is \$2,029 per member per month.

Graph 2
AHCCCS Program Contractors and Enrollees
1994



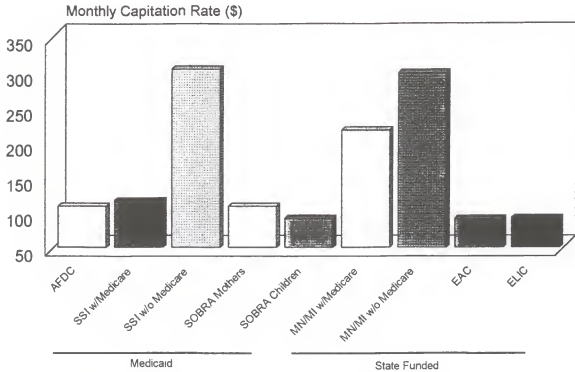
Source: Overview of the Arizona Health Care Cost Containment System, January 1995.

In 1984, the second year of the program, the 19 main plans providing AHCCCS services varied widely in their mode of payment. Eight plans pay their primary care physicians through a capitation or some combination of capitation and fee-for-service. Eight other plans pay their primary care physicians a salary, and one plan pays fee for service. The remaining two plans pay physicians through a combination of salary and capitation, or salary and fee for service.

With respect to specialists mode of payment, the majority are paid on a fee-for-service basis. Hospitals are normally paid the billed charges, but some of the plans paid by discounted charges, capitation, or combination of capitation and charges.

In 1994, the health plans were prospectively paid a fixed monthly capitation rate for each member. The capitation rate is based on the rate code (eg. AFDC, SSI, and the state-funded populations) and the geographic area in which the member resides (Graph 3).

Graph 3
State Average Capitation Rates for Major Rate Codes
1994-95



Source: Overview of the Arizona Health Care Cost Containment System, January 1995.

Gatekeeping and copayment

In the first year of the program, the gatekeeping concept was implemented, but the collection of the beneficiaries copayments was implemented by only 12 of the 19 plans. The original AHCCCS legislation required that all eligibles choose or be assigned to a primary care physician as a gatekeeper for all care received, but in the second year, the plans implemented the gatekeeper function in different ways.

Individual practice association type plans assigned enrollees to an individual gatekeeper, but staff and group model plans and plans sponsored by hospitals did not. Generally, for all plans, internists and obstetrician/gynecologists can serve as primary care gatekeepers, and in rural areas, general surgeons and other specialists who have traditionally acted as primary care physicians in those areas can serve as gatekeepers.

Nominal copayments are primarily used to control the inappropriate utilization of certain services by members; however, members can not be denied services due to their inability to pay the copayment. Table 1 shows the copayment amounts for each service.

Table 1
AHCCCS Copayments per Service

	Medicaid	State funded
Physician visit	\$1	\$5
Laboratory and X-Ray	\$1	\$5
Non emergency surgery	\$5	\$5
Non emergency use of the emergency room	\$5	\$5

Source: Overview of the Arizona Health Care Cost Containment System, January 1995.

Many plan administrators did not seem to feel copayments served an important function in promoting a sense of personal dignity or reducing unnecessary utilization of services. However, some rural plans supported copayments because they believed that their AHCCCS beneficiaries took pride in paying for part of their care.

Financial support

Financial support is received from three major sources: the counties, the federal contribution, and the state. Counties contribute a fixed amount per year based on each county's expenditures for indigent health care before AHCCCS. The federal contribution is based on the number of AFDC and SSI enrollees. The State of Arizona provides the balance of funding. The federal government provides matching funds only for the categorical eligibles, for whom it pays approximately 60 percent of the cost. Health plans are at risk for the services provided to a member since they must absorb the loss if the medical cost for the member exceeds the monthly capitation payment made to the health plan.

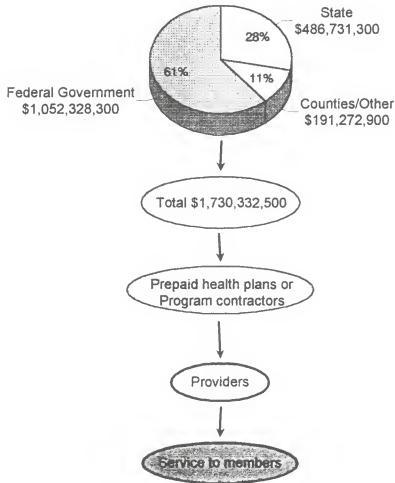
AHCCCS has State-funded indigent care programs for people whose income and assets are below Medicaid eligibility levels but who do not meet "categorical standards". These standards generally restrict Medicaid eligibility to the aged, blind and disabled and families with dependent children.

Program expenditures in the first 9 months of the program were \$91.7 million. During the second year, projected expenditures exceeded budget revenues by \$40 million because of significantly greater amounts paid for fee-for-service claims and higher- than-budgeted administrative expenses.

For 1995, the estimated expenditure for acute and long term care is approximately \$1,596,000,000. Funding for 1995 will be \$1,730,333,000 (Graph 4), including disproportionated share funds.



Graph 4
AHCCCS Funding SFY
1995



Source: Overview of the Arizona Health Care Cost Containment System, January 1995.

Quality assurance

During the first year, MSGI contracted with the Accreditation Association for Ambulatory Health Care (AAAHC) to conduct quality assurance reviews of all the AHCCCS plans. The AAAHC review found that the quality of medical care provided to AHCCCS patients appeared to be at least equivalent to their private non-AHCCCS patients.

At the time of enrollment, each member must be given material explaining formal grievance procedures available through the plan, the Administrator, and the Arizona Department of Health Services. Also AHCCCS established an Ombudsman Office to handle informal complaints.

General implications

For those who wish to implement an AHCCCS-type program, four lessons can be learned from the program's early implementation:

- It is important to allow adequate time to plan for all features of the program before going operational or the program will confront serious problems.
- There needs to be a clear definition of responsibilities within the program.
- Processes need to be completely and carefully designed so that the process itself does not contribute to the problems.
- Early attention must be given to monitoring cost, utilization, quality, and patient satisfaction. It is imperative to their effective implementation because their operation would be hampered with short-term problems. Documentation and monitoring of these systems requires early and constant commitment of human and financial resources.

Source: Health Care Financing Review/ Winter 1985/ Volume 7, Number 2
Intergovernmental Health Policy Project
Overview of the Arizona Health care Cost Containment System, Jan 1995

Summary of major principles

Arizona

Universal Coverage

No universal access proposals are being considered, but the legislature is creating other ways to increase the proportion of the population with health insurance. Examples of these are:

- *The Insurance Market Reform:* this measure blends small group reforms and a requirement that carriers phase - in managed care by offering providers per capita rates so as to offer lower-price plans.
- *State funded indigent care program:* for people whose income and assets are below Medicaid eligibility levels but who do not meet "categorical" eligibility standards.

Benefits

Include most acute services: hospital, physician, laboratory, x-rays, medical supplies, pharmacy, emergency services, and 29 optional services, not required by federal law, as dental services, transportation, prescription lenses, hearing aids, and others. Exclude nursing facility and home health services.

With respect to primary prevention activities, AHCCCS beneficiaries receive orientation on topics related to dangers of smoking, storage of cleaning products, family planning, woman, infant and children (WIC) services, and others. They also receive preventive care, such as, physical exams, eye exams, dental exams, blood pressure checks, pap smears, breast exam and others.

Access

Financial Barriers: All categorically eligible groups under Medicaid are covered, and also, people with low income but not categorically eligible. Beneficiaries are required to pay small copayments for services they receive.

Geographic access: A survey conducted in 1985 revealed that 88% of AHCCCS beneficiaries took less than 30 minutes to reach their usual source of care.



Medical students receive financial assistance for tuition, loans, or debts in return for practicing for a specified period of time in underserved areas or in specialties where there is a shortage of doctors.

Financing

Counties support indigent health services, the federal government provides matching funds only to the Medicaid categorical eligibles, and the state provides the balance of funding. The federal government pays a prepaid capitated rate to the state and the state in turn pays a capitated amount or bid rate to the plans.

An evaluation of AHCCCS in 1984 found that the majority of primary care physicians were paid through capitation, but specialists were normally paid on a fee for service basis.

Organization and Administration

When Arizona first joined the Medicaid program in 1982, it created AHCCCS, and received a waiver that allows enrollment of participants into private health maintenance organizations (HMO's). Enrollment in fully capitated HMO's is mandatory in 15 counties.

The government selects the plans through a bidding process. The state assumes most of the program's administrative functions, although it contracts a private Administrator for specific functions.

In terms of quality control, all insurers are required to use a uniform claims form. The Arizona Uniform Reporting System publishes reports annually that include corporate information on hospitals. There is also an Ombudsman Office for informal complaints.

Community Participation

None has been contemplated.

Appendix B

Florida Health Care Reform

Health Care Reform Development:

Florida did not wait for the federal government to introduce health care reform. Florida's objective is universal access to a basic package of health care benefits. The state has taken a voluntary approach to expanding access that includes less state funding. The first stage of the comprehensive health care reform began in 1992 with the Health Care Reform Act, that calls for voluntary approaches to achieve universal access and cost containment goals by December 1994. Specifically, the Health Care Reform Act of 1992, established the Agency for Health Care Administration (AHCA), which consolidated several health care functions into one department and centralized all regulatory authority over the health care system into one agency. The Agency for Health Care Administration has the responsibility to create a mandatory plan if a voluntary approach should fail. The 1992 Act includes:

1. Small group insurance reform
2. Florida health service corps to attract health professionals to undeserved areas
3. Data gathering and reporting to health consumers
4. Many others actions to contain costs and increase access

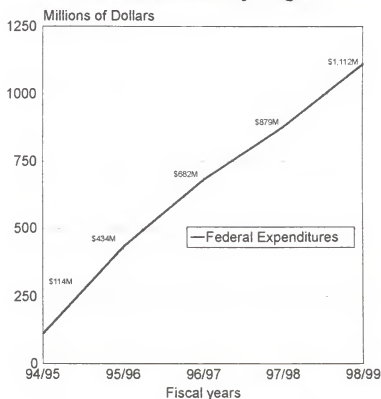
The 1992 small group insurance reform included guaranteed issue of the plan within certain limits, guaranteed renewal, rating restrictions and authorization of a basic benefits plan to make insurance more affordable to small business.

The second stage of the Florida Health Reform began with a 1993 reform law that was an entirely voluntary, market based version of managed competition with 11 Community Health Purchasing Alliances (CHPAs) to work with businesses and accountable health partnerships (AHPs). Also created in 1993 was the Med-Access program, a premium-paid (no state money), low cost basic benefit health plan for individuals below 250% of the federal poverty level. Other features of the new law included rural health networks, practice parameters, and Medicaid primary care case management. Specifically, the Rural Health Network Program was created to encourage establishment of a legally defined network to provide more coordinated delivery of services. This program gives special preference and also exceptions to these networks under the certificate of need programs.



The 1993 law also focuses on the development of a system for establishing practice parameters for cost-effectiveness and quality. The state's mandate to develop a data collection system is centered on hospital outcome measures. The law includes a development of standardized billing and claims forms, which in addition focus on improving the cost effectiveness of care. The third stage of Florida Health Care Reform began in January 1994 with the release of the Florida Health Security Plan called "Healthy Homes 1994". The Health Security Plan is a government subsidized, low premium health insurance program for people under 250 percent of the federal poverty level who have been uninsured for 12 months. It would guarantee coverage in private plans with an amount subsidized by the Agency for Health Care Administration (AHCA). Plans would purchase through Florida's voluntary alliances and the employers and employees would pay costs above the premium ceiling. Another feature in the third stage is that the proposed Health Security Act would establish the Health Security Program, which calls for an expansion of Medicaid coverage for individuals below the 250 percent of the federal poverty level. Medicaid cost savings will be used to subsidize private insurance coverage for the uninsured. The state is seeking to expand coverage while decreasing state subsidies for an existing small business insurance program.

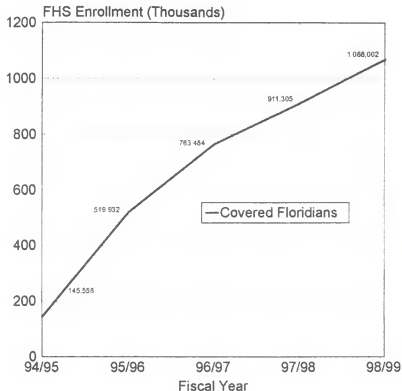
Figure 1
**Expanding Federal Investment Due to the
Florida Health Security Program**



Source: Florida Health Security, State of Florida, Executive Office of the Governor (1994)

By awarding Florida the Florida Health Security (FHS) waiver, the Health Care Financing Administration (HCFA) has authorized the largest waiver and provided the broadest flexibility ever granted to a state. The Florida Health Security Program represents \$5.8 billion in state and federal funds over the five year waiver period. Figure 1 presents the amount of funds for each fiscal year. The FHSP will provide \$3.5 billion in federal funds for the five year project. Figure 2 shows the population to be covered each fiscal year of the health reform project. By the fifth year of the waiver, the covered population will be 1.1 million.

Figure 2
Increasing Numbers of Insured Floridians



Source: Florida Health Security, State of Florida, Executive Office of the Governor (1994)

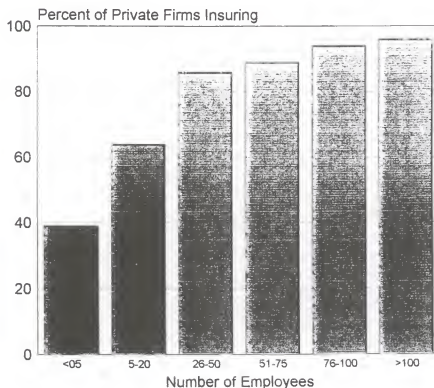
The federal waiver allows Florida to modify traditional Medicaid requirements for the FHSP participants. HCFA has granted the state broad flexibility in implementing FHSP by authorizing the state to:

- Set higher income levels for premium discounts based solely on income and family size
- Eliminate Medicaid's restrictive eligibility categories severing the links between medical assistance eligibility and public welfare programs.

The Problem

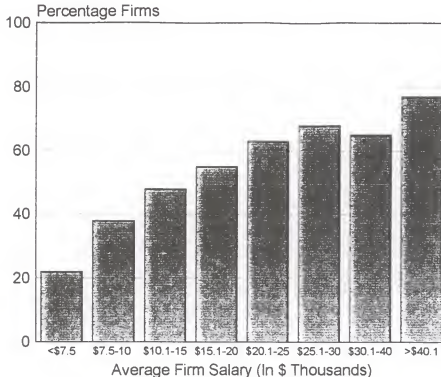
The Florida economy is dominated by small employers but they are not likely to offer health insurance because health insurance has become an unaffordable luxury. Large businesses offer it as an employee benefit. The problem is that 95 percent of the Florida businesses employ fewer than 25 people. About 45 percent of small businesses do not offer health insurance to their employees. The greater number of employees, the more likely Florida businesses are to offer health insurance as an employee benefit. As Figure 3 shows, only 39 percent of firms with less than five employees offer health insurance to their workers, while 96 percent of businesses with more than 100 employees insure their employees. There are 123,237 Florida businesses with five or fewer workers. In the same manner Figure 4 shows that as the average firm salary increases, Florida businesses are more likely to offer employee health coverage. Figure 4 illustrates that only about 20 percent of businesses with an average employee salary of \$7.50 per hour or less offer health insurance to their workers.

Figure 3
**Percentage of All Private Business In Florida
Offering Insurance**
(1993)



Source: Florida Health Security, State of Florida, Executive Office of the Governor (1994)

Figure 4
**Percentage of Businesses Offering Health Insurance
 By Average Firm Salary**



Source: Florida Health Security, State of Florida, Executive Office of the Governor (1994)

The main reason that employers cite for not offering health insurance benefits is cost. Acting alone, very few Florida businesses are able to exert any real clout in their local health care markets. Payers and providers can and do negotiate lower prices with large employers and big groups, but small businesses are not able to do this. This is the main reason for Florida to set up the Community Health Purchasing Alliances, to afford the same power enjoyed by large businesses to small employers that are too often left out of today's health insurance market.

For the first time, small businesses with 50 or fewer employees are joining together to purchase quality coverage at a bargain price. The facts are:

- There are 2.7 million Floridians who are unable to purchase health insurance.
- More than 82 percent of uninsured Floridians have annual incomes below 250 percent of the 1994 federal poverty level, which is \$37,000 for a family of four.

- The typical Florida family of four earning \$37,000 annually has only \$81 left each month after taxes, rent, car payments, food, clothing, utilities, and personal services; not enough to pay for health insurance.
- Most uninsured Floridians are employed. About 75 percent of uninsured residents are workers and their dependents. One-third are children.
- Florida has the fourth highest (22 percent) and one of the fastest growing uninsurance rates.
- More than 750,000 have annual incomes below 100 percent of the 1994 federal poverty level - \$14,800 for a family of four.
- Medicaid will not cover most uninsured Floridians. Eligibility is restricted to low-income children, pregnant women, single parent families, the elderly, and the disabled.

The FHSP is an attempt to:

- Eliminate asset tests.
- Greatly simplify current eligibility processes.
- Implement a public-private partnership to administer and deliver health care.
- Use private parties to determine eligibility.
- Permit participants to purchase health plans through regional purchasing alliances;
- Allow the state to define the benefit standard for FHS participants; and
- Permit participants to share in the costs of premiums and health services.

The waiver is a major step in Florida's health reform initiative to preserve the voluntary, employer-based private health insurance system.

The problem here is that the small businesses cannot offer health insurance benefits to their employees. The working uninsured literally gamble that they won't become seriously ill. They usually do not make regular visits to the physician, and get less preventive care. Over time, small health problems become impossible to ignore. When they cannot wait anymore, the uninsured go to the hospital emergency room. The question is who will pay the bill? The provider must absorb the cost, and pass it along in the form of higher charges to those who have coverage. This causes insurance companies to pay more, and raise the price of the premiums. The problem thus becomes generalized.

The Florida Health Security Program (FHSP):

Florida Health Security (FHS) will provide affordable health care benefits by discounting health insurance premiums for Floridians with incomes at or below 250 percent of the federal poverty level.

FHS deters cost shifting by creating 1.1 million new paying patients, providing coverage to many of Florida's uninsured.

FHS will not require any new federal or state funds or taxes. Premium discounts will be funded with federal and state savings already building up as traditional Medicaid recipients enroll in more efficient health plans.

FHS maximizes the return of federal funds to Florida. The federal government will pay almost 56 percent of the premium discounts.

FHS is not a welfare program. Each participant will pay a portion of their premium, according to income levels.

Individual premium contributions will depend on a person's income, individual or group coverage, and employer contributions to premium costs. Premium contributions will range from \$12 to \$18 for individual and family coverage for people with income below 100 percent of the federal poverty level and \$50 to \$78 for individual and family coverage for those with income between 200-250 percent of poverty.

There is no employer mandate. The program is voluntary for employers and individuals and there is no required employer contribution for those that choose to participate.

Eligibility

FHS participants must:

- be U.S. citizens or documented persons with incomes at or below 250 percent of the federal poverty level;
- have one or more members of the family that has been uninsured for at least 12 months;
- not be enrolled in Medicare or Medicaid;
- not reside in a public or private institution;



- be a resident of Florida; and
- not have transferred income producing assets to non-income producing assets to establish eligibility.

Eligibility is not related to employment status. Program enrollments will be limited to approximately 1.1 million spaces when the program is fully implemented.

Table 1
**The Estimated Caseload for the Five-Year
 Florida Health Security Demonstration Program**

FHS	SFY 94-95	SFY 95-96	SFY 96-97	SFY 97-98	SFY 98-99
Enrollees	145,558	519,932	763,484	911,305	1,068,002

Program Design

FHS participants will be guaranteed an attractive benefit package that includes broad inpatient care, outpatient services, primary and preventive care, prescribed drugs, behavioral health services, and even some long-term care and community-based services.

Every 12 months, FHS enrollees will be able to select the plan of their choice from scores of HMO, PPO, point of service, exclusive provider organization, and indemnity plans based on quality and price.

FHS will use a streamlined administrative process that combines plan selection, enrollment, and eligibility determination.

FHS will be delivered through the private insurance market with minimal government bureaucracy. Employers and individuals may purchase coverage through the CHPAs.

Premium Contributions

In order to make the FHS benefit standard affordable, the FHS benchmark premium is set at \$116 per individual and \$348 per family per month, regardless of family size. Premium discounts are established at broad income bands in order to avoid frequent premium contribution adjustments to account for minor changes in income. The average monthly costs for individual and family coverage, and state and federal shares are shown in Tables 2 and 3.



The federal share of the premium is based on the current Florida Medicaid federal financial participation rate, and the state share consists of individual/employee, employer, and state contributions. Federal contributions remain fixed for all participant income tiers up to 250 percent of the federal poverty level. Individuals or families with no income do not have to contribute to their premium costs. Employers and individuals will be responsible for all premium costs above the benchmark price.

Table 2
Average Monthly Cost By Income Level - Individual Coverage
(Per Month Cost = \$116/Month)

INDIVIDUAL INCOME AS A PERCENTAGE OF THE FEDERAL POVERTY LEVEL	STATE SHARE			FEDERAL SHARE
	EMPLOYER/EMPLOYEE	OTHER STATE FUNDS	TOTAL STATE FUNDS	TOTAL FEDERAL FUNDS
	INDIVIDUAL			
Individuals with no income	\$ 0	\$51	\$51	\$65
Less than 100% (Less Than \$7,360)	\$12	\$39	\$51	\$65
100% to 150% (\$7,360 to \$11,040)	\$24	\$27	\$51	\$65
150% to 200% (\$11,040 to \$14,720)	\$36	\$15	\$51	\$65
200% to 250% (\$14,720 to \$18,400)	\$50	\$ 1	\$51	\$65

Table 3
Average Monthly Cost by Income Level - Family Coverage
(Per Month Cost = \$348/Month, Family Size=4)

FAMILY INCOME AS A PERCENTAGE OF THE FEDERAL POVERTY LEVEL	STATE SHARE			FEDERAL SHARE
	EMPLOYER/EMPLOYEE	OTHER STATE FUNDS	TOTAL STATE FUNDS	TOTAL FEDERAL FUNDS
	INDIVIDUAL			
Family with no income	\$ 0	\$153	\$153	\$195
Less than 100% (Less Than \$14,800)	\$18	\$135	\$153	\$195
100% to 150% (\$14,800 to \$22,200)	\$42	\$111	\$153	\$195
150% to 200% (\$22,200 to \$29,600)	\$60	\$ 93	\$153	\$195
200% to 250% (\$29,600 to \$37,000)	\$78	\$ 75	\$153	\$195

Financing: Program Revenues and Expenditures

No new state or federal revenues are needed to finance FHS. The program will be federal and state budget neutral. All expenditures will be financed with existing state and federal funds. Medicaid savings accrued from mandating managed care for all Medicaid recipients, modifying Medicaid reimbursement policies, reallocating disproportionate share hospital funds, and eliminating the Medically Needy program (except for current eligibles) and employer and individual premium contributions will be used to finance FHS. Tables 5 and 6 summarize

revenues and expenditures and the source of state funds. Employer and individual premium contributions are included in the state's contribution. Florida will receive \$3.2 billion in federal funds to finance FHS.

Table 4
Sources of Florida Health Security Funds

	Five-Year Contribution	Percent of Total
Federal	\$3221300000	55.12%
State	\$1768600000	30.26%
Employer/Employee	\$854200000	14.62%
Total	\$5844100000	100%

Table 5
Florida Health Security Financing: Budget Neutrality Revenues Compared to Expenditures (In \$ Millions)

	SFY 1995-96			SFY 1996-97			SFY 1997-98			SFY 1998-99		
	STATE	FEDERAL	TOTAL	STATE	FEDERAL	TOTAL	STATE	FEDERAL	TOTAL	STATE	FEDERAL	TOTAL
Revenues	\$4615	\$434.4	\$895.9	\$739.0	\$681.8	\$1420.8	\$952.7	\$879.9	\$1831.6	\$1205.8	\$112.3	\$2318.1
Expenditures	\$347.2	\$434.4	\$781.6	\$557.8	\$681.8	\$1239.6	\$719.0	\$878.9	\$1597.9	\$910.0	\$112.3	\$2022.3
Difference Over/(Under)	\$114.3	\$0.0	\$114.3	\$161.2	\$0.0	\$161.2	\$233.7	\$0.0	\$233.7	\$295.8	\$0.0	\$295.8

Table 6
Revenues By Source: Medicaid Savings (In \$ Millions)

	SFY 1995-96			SFY 1996-97			SFY 1997-98			SFY 1998-99		
	STATE	FEDERAL	TOTAL	STATE	FEDERAL	TOTAL	STATE	FEDERAL	TOTAL	STATE	FEDERAL	TOTAL
Medicaid Managed Care	\$142.8	\$178.6	\$321.4	\$216.8	\$267.1	\$483.9	\$246.0	\$300.6	\$546.6	\$275.3	\$336.5	\$611.8
Medicaid Reimbursement Reforms	\$78.3	\$98.0	\$176.3	\$133.8	\$163.6	\$297.4	\$205.6	\$251.3	\$456.9	\$297.9	\$364.1	\$662.0
Disproportionate Share	\$21.7	\$27.2	\$48.9	\$46.6	\$57.0	\$103.6	\$72.7	\$88.9	\$161.6	\$112.1	\$123.6	\$235.7
Medically Needy	\$14.5	\$10.6	\$25.1	\$16.8	\$14.1	\$30.9	\$14.8	\$23.1	\$37.9	\$23.8	\$28.1	\$51.9
TOTAL SAVINGS	\$347.3	\$434.4	\$781.7	\$557.8	\$681.8	\$1239.6	\$719.1	\$878.9	\$1598.0	\$910.2	\$112.3	\$2022.5

Medicaid Reforms:

By authorizing federal funding for premium discounts, the federal government for the first time will allow a state to use Medicaid funds to purchase private health plans on a large scale.

The FHS waiver allows Florida to modify the Medicaid program to provide insurance premium discounts to working, uninsured Floridians traditionally ineligible for Medicaid.

Florida will be permitted to use both employee/individual and employer premium contributions as state matching funds eligible for federal Medicaid matching funds.

Through the use of a gradually declining subsidy for individuals traditionally ineligible for Medicaid, Florida will be able to eliminate the "all or none" approach of Medicaid, closing the gap between those who have Medicaid and those who have private insurance.

FHS will enhance individual responsibility and provide individuals with greater control over their care process.

FHS also represents a major welfare reform initiative since the program will aid working individuals whose income rises above Medicaid income eligibility limits in their transition from public to private health insurance. FHS will remove a major incentive to remain on welfare - continuing Medicaid eligibility - by offering discounts of private health insurance, allowing recipients to leave public welfare for the workforce.

By ensuring managed care, reimbursement reforms, and elimination of the open-ended fee-for-service system, Medicaid will establish the incentives needed to control program growth and ensure access to care.

Basic Benefit Standard

Florida is one of a few states that has chosen to address health care reform in a comprehensive manner - seeking to reform all aspects of health care financing, delivery, purchasing, and regulation concurrently. Systematically defining an explicit set of basic health care benefits for all Floridians is a significant piece of the state's health care reform effort.

The Health Care Reform Act of 1992 access goal states: "All Floridians shall be ensured access to a basic health benefit package as determined by the Legislature, by December 31, 1994" (s. 408.006(1), Florida Statutes). To achieve this goal, the law directs the Agency for Health Care Administration (AHCA) to recommend to the Legislature in the 1993 Florida Health Plan proposals for "increasing health care coverage through the development of a basic health care benefit package that provides basic health services to all residents of the state, regardless of health condition..... (s. 408.006(1)(a)1., Florida Statutes).

Balancing comprehensiveness and affordability was the overriding concern in the development of the basic benefit standard. Because the basic benefit standard will be offered to Floridians in a voluntary health insurance environment, it must not only include those services Floridians need to achieve and maintain good health, but it must also be affordable to the individuals and employers who will pay for it.

The proposed basic benefit standard will become the floor for all private non-self-insured health plans in Florida, providing that AHCA's Florida Health Security Program is adopted and implemented. It will supersede health plans that do not contain benefits that are equal to or greater than those specified in the benefit floor. The basic benefit standard will replace the basic and standard plans that are currently available for small employers with up to 50 full-time employees. It will be adopted by the Florida Health Security Program as the benefit package that will be offered to that program's participants. The new basic benefit standard will also supersede the health benefit mandates that are currently in Florida law. Purchasers would be able to buy additional benefits, but carriers would not be allowed to offer plans that contain lesser benefits than those contained in the basic benefit floor. Thousands of Floridians are underinsured; they may, for example, have policies that only cover hospitalizations or specific diseases. These types of policies neither provide the range of services individuals and families require, nor do they protect Floridians from high out-of-pocket health care costs for non-covered conditions. If the Florida Health Security Program is not adopted, the basic benefit standard will become a mandatory offer that all insurance companies and health maintenance organizations (HMOs) must make to employers and individuals.



A mandatory offer means that an insurer or HMO must offer a benefit coverage to a customer, but the customer is not required to accept it.

The Employee Retirement Income Security Act (ERISA) of 1974 prohibits states from regulating employee benefit plans, including employer self-funded health insurance plans. To apply the basic benefit standard to self-funded plans, the ERISA law would have to be amended, as has been proposed by President Clinton. In the interim, employers that self insure their employees' health benefits should be encouraged to, at a minimum, adopt the basic benefit standard coverage.

To fulfill its legislative mandate, in August 1993, AHCA convened a 30-member advisory committee consisting of consumers, employers, providers, and insurers to provide expert advice and assistance to AHCA in developing the basic benefit standard.

Basic Benefit Standard Proposal

Innovations in Coverage and Cost Efficiency

AHCA's proposed basic benefit standard compares favorably with other health benefit plans. It includes more extensive coverage in many areas than the DOI basic and standard plans, and virtually all of the services that the State Employees' Health Insurance Plan covers. The President's proposal tends to be more comprehensive in the areas of mental health and substance abuse services and restorative dental care. A comparison of AHCA's proposal with the DOI basic and standard plans, President Clinton's plan, and Florida's State Employees' Health Insurance Plan is in Appendix 5.

The development of the basic benefit standard was based on service coverage, rather than on delivery by specific health care providers. The services contained in the basic benefit standard may be rendered by a health care provider working within the scope of their license.

The proposed basic benefit standard differs from traditional insurance plans in several ways:

Emphasis on Prevention. The proposal contains a unique blend of preventive and educational services that are not typically found in a health insurance plan. The need for preventive services coverage in a basic benefit standard was reinforced in the public outreach testimonies and the focus group sessions. The committee felt strongly that the majority of preventive services should not be subject to coinsurance or copayments, and should be predeductible. Only a few of the preventive services that are included in the basic benefit standard would be subject to any cost sharing requirements. For children, Florida's proposed basic benefit standard builds on the framework established in the Child Health Supervision Services Act.



It raises the maximum age for receiving child health supervision services from 16 to 18, and expands the scope of coverage to provide a wide range of preventive services.

Table 7
Basic Benefit Standard Preventive and Educational Services

Service	HMO Only (Option1)	Indemnity / PPO Only		
	Copayment	50 / 50 Coinsurance (Option 2)	60 / 40 Coinsurance (Option 3)	Deductible
Health Assessment Exam	\$5 copay / visit	80%	90%	\$0
Child Health Supervision	\$0	\$0	\$0	\$0
Family Planning Services	\$0	\$0	\$0	\$0
Prenatal and Postnatal Care	\$0	\$0	\$0	\$0
Screening Exams (Adult & Child)	\$0	\$0	\$0	\$0
Immunizations (Adult & Child)	\$0	\$0	\$0	\$0
Eye Exams and Hearing Exams (Adult & Child)	\$0	\$0	\$0	\$0
Purchase or Fitting of Eye Glasses (\$100 limit or \$150 for bificals; limited to children through age 18 only)	\$25 copay / prescription	80%	90%	\$0
Purchase or Fitting of Hearings Aids (children through age 18 only)	\$25 copay / device	80%	90%	\$0
Preventive Dental Services (children through age 18 only)	\$10 copay / visit	80%	90%	\$0
Dietary Instruction and Nutritional Counseling	\$10 copay / visit	80%	90%	\$0

Inclusion of More Extensive Mental Health and Substance Abuse Benefits. The proposal introduces a new level of coverage - residential services for mental health and substance abuse treatment. This benefit would be offered in lieu of inpatient hospitalization, to give providers and consumers an incentive to treat these disorders in less costly settings. The plan includes 30 days per calendar year of inpatient hospitalization for mental health and seven days per calendar year for medical detoxification. It also covers up to 40 outpatient visits per year in an HMO or \$2,000 for outpatient services in an indemnity or PPO plan.

Inclusion of Inpatient Rehabilitation. The proposal provides for 30 days of inpatient rehabilitation services, as a separate benefit from hospital inpatient care. The committee heard testimony from numerous individuals concerning, the value of rehabilitative services. *Organ transplants.* The plan covers a broad array of organ and tissue transplants.

Consumer Choice. To introduce consumer choice in the selection of health plan AHCA's basic benefit standard proposal includes three plan options: an HMO plan (Option 1), which would not require deductibles or coinsurance, but would include varying copayments; a 50/50 coinsurance option (Option 2) and a 60/40 coinsurance option (Option 3), both of which would apply to indemnity or PPO plans. Carriers with provider networks, however, would not be precluded from offering lower cost-sharing plans (e.g., 80/20 coinsurance) as long as they can demonstrate on an actuarially sound basis that the premiums for the alternative plan are no higher than the premiums for Option 2 or Option 3 offered on an indemnity basis and if the benefits are equal to or greater than the basic benefit standard.

Table 8
Expenses for the Basic Benefit Standard

	HMO	PPO / Indemnity	
	Option 1	Option 2 50 / 50 Coinsurance	(Option 3) 60 / 40 Coinsurance
Deductible:			
Individual	Does not apply	\$ 750	\$ 500
Family	Does not apply	\$1,500	\$1,000
Copayments	Variable	Variable	Variable
Maximum Out-Of-Pocket:			
Individual	\$2,000	\$2,000	\$2,000
Family	\$4,000	\$4,000	\$4,000

Incentives for Cost-Efficient Use of Childbirth Services. In addition to the regular inpatient coverage for childbirth services, the basic benefit standard also offers incentives for women to use services more efficiently. Under the indemnity/PPO options, there would be no coinsurance requirements and only a \$50 copayment required for a 24-hour admission and discharge from a hospital or free-standing birthing center. An HMO patient would only pay a \$50 copayment for a 24-hour admission and discharge from these facilities.

Other services that are covered in the basic benefit standard include: case management services for people with complicated or expensive illnesses; hospital inpatient services with unlimited days (except for comprehensive inpatient rehabilitative services and mental health and substance abuse disorders); emergency care service; outpatient medical services; non-surgical spine and back disorder treatments; prescription drugs; outpatient rehabilitative therapy services (respiratory therapy, physical therapy, speech therapy, occupational therapy, and audiology); durable medical equipment and orthotic or prosthetic devices, skilled nursing services (100-day lifetime maximum benefit); home health care; and hospice.

Challenges in meeting the health and long-term care needs of Florida's senior citizens will increase as the elderly population continues to grow. The basic benefit standard includes a lifetime maximum of only 100 days for skilled nursing services and 60 visits per year for home health care. However, long-term care will be more fully addressed by an interagency committee. The interagency committee will work toward expanding a continuum of cost-effective, appropriate long-term care services that ensure that care is provided in the most appropriate settings to foster independence and self-reliance. AHCA will also explore ways to enhance health promotion and prevention programs and access to primary care services for all older Floridians. Medicare benefits and the services provided by Medigap coverages will not be affected by the basic benefit standard. However, recognizing current health care coverage limitations, the Department of Elder Affairs, DOI, and AHCA will continue to develop additional health insurance coverage specifically designed to address the needs of the older population.

Table 9
Summary of Basic Benefit Standard Cost Sharing

Coverage	Option 1: HMO	Option 2: 50/50	Option 3: 60/40
Calendar Year Deductible	None	\$750/\$1,500	\$500/\$1,000
Maximum Out-of-Pocket (annual)	\$2,000/\$4,000	\$2,000/\$4,000	\$2,000/\$4,000
Maximum Lifetime Benefit	None	\$1,000,000	\$1,000,000
Inpatient Hospital Services	\$200 copay/day, days 1-5, balance covered	50/50 coinsurance	60/40 coinsurance
Health Care Provider Services	Covered	50/50 coinsurance	60/40 coinsurance
24-hour Admission & Discharge for Childbirth from Hospital or Birth Center	\$50 copay, balance covered	No coinsurance, \$50 copay	No coinsurance, \$50 copay
Transplant Coverage (\$10,000 lifetime maximum benefit for all procedures)	Covered	50/50 coinsurance	60/40 coinsurance
Inpatient Comprehensive Rehabilitative Services (30-day limit)	\$200 copay/day, days 1-5, balance covered	50/50 coinsurance	60/40 coinsurance
Emergency Care Services			
Emergency Room (waived if admitted)	\$50 copay/visit	50/50 coinsurance, plus \$50 copay	60/40 coinsurance, plus \$50 copay
Ambulance (waived if admitted)	\$25 copay	50/50 coinsurance, plus	60/40 coinsurance, plus
Outpatient Services			
Surgical Care in Outpatient Hosp. Dept.	\$100 copay/visit	50/50 coinsurance	60/40 coinsurance
Non-Surgical Care in Ambulatory Surgical Center	Covered	50/50 coinsurance	60/40 coinsurance
Health Care Provider Office Visit	\$10 copay/visit	50/50 coinsurance	60/40 coinsurance
Specialist Office Visit	\$20 copay/visit	50/50 coinsurance	60/40 coinsurance
Outpatient Services (Cont.)			
Surgical Care in Provider Office or Outpatient Facility	\$50 copay/visit	50/50 coinsurance	60/40 coinsurance
Non-Surgical Spine & Back Disorder Treatment (Limited to 10 treatments/CY)	\$10 copay/visit	50/50 coinsurance	60/40 coinsurance
Outpatient Rehabilitative Services (Limited to 30 outpatient treatments/CY)	\$10 copay/visit	50/50 coinsurance	60/40 coinsurance

Coverage	Option 1: HMO	Option 2: 50/50	Option 3: 60/40
Prescription Drugs	Per prescription or refill:	Per prescription or refill:	Per prescription or refill:
	\$7 (generics)	\$7 (generics)	\$7 (generics)
	\$4 (brand names)	\$4 (brand names)	\$4 (brand names)
Home Health Services (in lieu of hospital)	Covered up to 60 visits/CY	No coinsurance; 60 visits/CY or \$3,600 maximum benefit/CY	No coinsurance; 60 visits/CY or \$3,600 maximum benefit/CY
Skilled Nursing Facility (Lifetime maximum of 100 days; in lieu of hospital)	\$25 copay/day	50/50 coinsurance	60/40 coinsurance
Hospice (in lieu of hospital)	Covered	No coinsurance	No coinsurance
Durable Medical Equipment & Orthotics and Prosthetics	Covered	50/50 coinsurance	60/40 coinsurance
X-Ray, Laboratory, & Diagnostic Services	Covered	50/50 coinsurance	60/40 coinsurance
Mental Health Services			
Impatient Services (20 days per episode/ maximum of 30 days/CY for all episodes)	\$200 copay/day, days 1-5, balance covered	50/50 coinsurance (limit of 30 days/CY)	60/40 coinsurance (limit of 30 days/CY)
Residential Services (Limit of 30 days/CY in lieu of hospital)	\$100 copay/day, days 1-5, balance covered	50/50 coinsurance (maximum benefit allowance of \$7,500/CY)	60/40 coinsurance (maximum benefit allowance of \$7,500/CY)
Outpatient Services	\$10 copay/visit (maximum of 40 visits/CY)	50/50 coinsurance (maximum benefit allowance of \$2,000/CY)	60/40 coinsurance (maximum benefit allowance of \$2,000/CY)
Substance Abuse Services			
Inpatient Services (Maximum of 7 days/ CY for medical detoxification only)	\$200 copay/day, days 1-5, balance covered	50/50 coinsurance	60/40 coinsurance
Residential Services	\$100 copay/day, days 1-5, balance covered (maximum of 30 days/CY)	50/50 coinsurance (maximum benefit allowance of \$7,500/CY)	60/40 coinsurance (maximum benefit allowance of \$7,500/CY)
Outpatient Services	\$10 copay/visit (maximum of 40 visits/CY)	50/50 coinsurance (maximum benefit allowance of \$2,000/CY)	60/40 coinsurance (maximum benefit allowance of \$2,000/CY)
Preventive & Education Services			
(Predeductible, not subject to copayments or coinsurance except as specified)			
Health Assessment Exam:			
Age 20-39, 1 every 3 years	\$5 copay/exam	80/20 coinsurance	90/10 coinsurance
Age 40 and over, 1 annually	\$5 copay/exam	80/20 coinsurance	90/10 coinsurance
Child Health Supervision	Covered (periodicity specified in Florida law)	No coinsurance	No coinsurance
Oral Contraceptives	Covered	No coinsurance	No coinsurance
Contraceptive Devices & Implants	Covered	No coinsurance	No coinsurance
Prenatal & Postnatal Care	Covered	No coinsurance	No coinsurance
Screening Exams	Covered	No coinsurance	No coinsurance
Eye Exams (adult and child)	Covered	No coinsurance	No coinsurance
Purchase or fitting of eyeglasses (children through age 18 only) \$100 maximum benefit allowance/CY for eyeglass frames, UV tinting, and lenses; \$50 maximum benefit allowance/CY for bifocals	\$25 copay/prescription	80/20 coinsurance	90/10 coinsurance
Preventive Dental Services (children through age 18 only)	\$10 copay/visit	80/20 coinsurance	90/10 coinsurance
Hearing Exams (adult and child)	Covered	No coinsurance	No coinsurance
Purchase or fitting of hearing aids (children through age 18 only)	\$25 copayment/device	80/20 coinsurance	90/10 coinsurance
Dietary Instruction/ Nutrition Counseling	\$10 copayment/visit	80/20 coinsurance	90/10 coinsurance



Cost

Because price was such an important concern, the committee needed a benchmark against which to measure the cost of the proposed basic benefit standard. Actuaries on the committee developed estimates of the monthly premium, and per member per month costs for an individual for the Department of Insurance (DOI) basic and standard plans for indemnity/PPO products and HMO products, based on their companies' experience. Agency staff recommended that the estimated cost of the proposed basic benefit standard should be targeted to the mid-point of estimated prices of the DOI basic and standard plans. The estimated mid-point for the indemnity/PPO plan was about \$130, while the midpoint for the HMO plan was about \$110. The committee agreed to use these estimates as the targets for the proposed basic benefit standard. The estimates assumed modified community rating and guarantee issue, as is currently required for the small group health insurance plans.

Carriers that sell indemnity products reported that the deductible is probably the most price-sensitive portion of the premium, while the amount of copayments for HMO products has a significant impact on HMO premiums. Committee members learned that as the deductible or copayments are raised, the ability to increase benefit coverage increases. In other words, the trade-off for expanding the range of covered services is to increase the deductible and copayments. Conversely, to lower the deductible or copayment, benefits would either have to be eliminated altogether or significantly limited. Committee members chose to propose higher deductibles and copayments in exchange for more comprehensive benefits, such as extensive preventive services, comprehensive inpatient rehabilitation care, and broader mental health and substance abuse coverage.

Because of its concurrent proposal to develop the Florida Health Security Program, which would provide financial assistance to Floridians and their employers, AHCA determined that the basic benefit standard would remain affordable. Eligibility for the Florida Health Security Program, which would be set at 250 percent of the federal poverty level, would be based solely on gross family income, U.S. citizenship, and Florida residency. No asset tests would be required and individuals would be eligible without regard to their employment status. The Florida Health Security Program would ensure that Floridians who would otherwise find the cost of the basic benefit standard to be prohibitive would be able to afford and receive the benefits contained in the basic benefit standard. If the Florida Health Security Program is not adopted and implemented, the basic benefit standard would become a mandatory offer that must be made to all employers and individuals.

The committee recommended that the basic benefit standard proposal should be considered with the following caveats: (1) The proposal should be phased in over time to provide insurers with sufficient time to adjust to a new industry standard. Employers or individuals with existing health insurance plans that do not meet the basic benefit standard should be allowed to

increase their benefits gradually to prevent them from dropping their coverage altogether; (2) the basic benefit standard should be enacted as the floor for all non-self-insured plans contingent on the passage of the Florida Health Security Program; (3) there should be a way to prevent people who already have coverage that is more comprehensive than the basic benefit standard from downgrading their coverage to the floor; and (4) the proposal does not address long-term care or the special needs of people with chronic illnesses. The committee recommended the formation of work groups to specifically address these needs and their financing.

Preferred Benefit Standard Proposal

Although the law requires AHCA to develop and recommend a basic benefit standard proposal, the committee developed two proposals: the basic benefit standard and a preferred benefit standard. Some committee members were concerned that the basic benefit standard, rather than serving as a floor for all private non-self-insured plans, could in fact become a "ceiling," encouraging individuals and employers with richer benefit plans to downgrade their plans to the benefit floor. In addition, the committee heard from a variety of consumers with specific illnesses or diseases and from certain providers that some services would not be fully covered. Recognizing that the basic benefit standard has to be affordable to millions of uninsured and underinsured Floridians, the committee decided to recommend two proposals for inclusion in the Florida Health Plan, the basic benefit standard required by law, and a "preferred" benefit standard, which would serve as the ideal set of benefits that the Legislature should consider phasing in over time.

The committee felt strongly that a long-range preferred set of benefits should be clearly described for future enhancement of and incorporation into the basic benefit standard. As managed competition forces work to lower health care costs and increase access, the savings from the system could be used to further enhance the basic benefits all Floridians would receive. A comparison between the basic and preferred benefit standards is included in Appendix 3.

Basic Benefit Standard Recommendations

1. Enact the basic benefit standard proposed by AHCA, establishing it as the benefit floor for all non-self-insured plans in Florida, contingent on the passage of the Florida Health Security Program. The effective date of the basic benefit standard should be set as January 1, 1996.
2. Effective January 1, 1995, require the basic benefit standard to become a mandatory offer for all employers and individuals if the Florida Health Security Program is not enacted and implemented.



3. Authorize AHCA and DOI to establish by administrative rule the basic benefit standard and minimum standards for the general content of forms for individual and group health benefit plans, such as: terms of renewability; plan enrollment procedures; waiting periods; exclusions, limitations and reductions; pre-existing condition limitations; and termination of insurance.
4. Contingent on the passage of the Florida Health Security Program, repeal all existing benefit mandates and mandatory benefit offerings included in the Florida Statutes, effective January 1, 1995.
5. Repeal the authority of the Florida Department of Insurance to promulgate rules regarding any health benefit plan providing coverage for medical, hospital, or surgical care, or any combination thereof, including the standard and basic plan and specified disease plans.
6. Adopt in principle AHCA's proposed preferred benefit standard.
7. Encourage self-insured employers to, at a minimum, include the coverage in the basic benefit standard in their employee health benefit plans.

Sources: The Florida Health Security Plan, Healthy Homer 1994
Intergovernmental Health Policy Project, 1994
Florida on the Fast Track to Health Care Reform, Ken Terry



Summary of major principles

Florida

Universal Coverage

Florida Health Security (FHS) will provide affordable health care benefits by discounting health insurance premiums for Floridians with incomes below 250 percent of the federal poverty level. FHS deters cost shifting by creating 1.1 million new paying patients, providing coverage to many of Floridians uninsured. FHS participants must:

- be US citizen or documented persons with income at or below 250 percent of the federal poverty level
- have one or more members of the family that has been uninsured for at least 12 months
- not be enrolled in Medicare or Medicaid
- not reside in a public or private institution
- be a resident of Florida

Eligibility is not related to employment status. Program enrollments will be limited to approximately 1.1 million spaces when the program is fully implemented.

Benefits

The development of the basic benefits standard was based on services coverage, rather than on delivery by specific health care providers. The Basic Benefits Standard are:

- Health Assessment Exam
- Child Health Supervision
- Family Planning Services
- Prenatal and Postnatal Care
- Screening Exams
- Immunizations
- Eye and Hearing Exams



- Purchase or Fitting of Eye Glasses to children through age 18 only
- Purchase or fitting of Hearing Aids
- Preventive Dental Services
- Dietary Instruction and Nutritional Counseling

Other services that are covered in the basic benefit standard include: case management services for people with complicated or expensive illnesses; hospital inpatient services with unlimited days (except for comprehensive inpatient rehabilitative services and mental health and substance abuse disorders); emergency care service; outpatient medical services; non-surgical spine and back disorder treatments; prescription drugs; outpatient rehabilitative therapy services (respiratory therapy, physical therapy, speech therapy, occupational therapy, and audiology); durable medical equipment and orthotic or prosthetic devices, skilled nursing services (100-day lifetime maximum benefit); home health care; and hospice.

Access

Financial Barriers: Over time, small health problems become impossible to ignore. When they cannot wait anymore, the uninsured go to the hospital emergency room. The question is who will pay the bill? The provider must absorb the cost, and pass it along in the form of higher charges to those who have coverage. This causes insurance companies to pay more, and raise the price of the premiums. The Florida Health Security Program (FHSP):

- will provide affordable health care benefits by discounting health insurance premiums for Floridians with incomes at or below 250 percent of the federal poverty level.
- deters cost shifting by creating 1.1 million new paying patients, providing coverage to many of Florida's uninsured.
- will not require any new federal or state funds or taxes. Premium discounts will be funded with federal and state savings already building up as traditional Medicaid recipients enroll in more efficient health plans.

- maximizes the return of federal funds to Florida. The federal government will pay almost 56 percent of the premium discounts.
- is not a welfare program. Each participant will pay a portion of their premium, according to income levels.
- Individual premium contributions will depend on a person's income, individual or group coverage, and employer contributions to premium costs. Premium contributions will range from \$12 to \$18 for individual and family coverage for people with income below 100 percent of the federal poverty level and \$50 to \$78 for individual and family coverage for those with income between 200-250 percent of poverty.
- There is no employer mandate. The program is voluntary for employers and individuals and there is no required employer contribution for those that choose to participate.
- Will not require co-insurance or deductibles for preventive services.

Geographic access: N/A. This plan is basically an insurance-drive in reform.

Financing

No new state or federal revenues are needed to finance FHS. The program will be federal and state budget neutral. All expenditures will be financed with existing state and federal funds. Medicaid savings accrued from mandating managed care for all Medicaid recipients, modifying Medicaid reimbursement policies, reallocating disproportionate share hospital funds, and eliminating the Medically Needy program (except for current eligibles) and employer and individual premium contributions will be used to finance FHS.

Organization and Administration

By awarding Florida the Florida Health Security (FHS) waiver, the Health Care Financing Administration (HCFA) has authorized the largest waiver and provided the broadest flexibility ever granted to a state. The Florida Health Security Program represents \$5.8 billion in state and federal

funds over the five year waiver period. The FHSP will provide \$3.5 billion in federal funds for the five year project. By the fifth year of the waiver, the covered population will be 1.1 million.

The FHSP is an attempt to:

- Eliminate asset tests.
- Greatly simplify current eligibility processes.
- Implement a public-private partnership to administer and deliver health care.
- Use private parties to determine eligibility.
- Permit participants to purchase health plans through regional purchasing alliances;
- Allow the state to define the benefit standard for FHS participants; and
- Permit participants to share in the costs of premiums and health services.

Community Participation

None has been contemplated.



Appendix C

Hawaii Health Care Reform

Background

On January 1, 1975, Hawaii approved the "Hawaii Prepaid Health Care Act". The Act requires health coverage for any employee who works 20 or more hours per week for a month or longer through either an indemnity plan or a health maintenance organization (HMO). Employers must pay at least half of the premium and the employee share is limited to 1.5 percent of gross wages. This Act passed before the federal ERISA law (the Employment Retirement and Income Security Act), which prevents states from regulating self-insured employers health plans.

The Health Insurance Plan that has the largest number of subscribers decides the health benefit package. In the case of Hawaii, the most prevalent health care packages are proposed by The Hawaii Medical Services Association (Blue Cross & Blue Shield), and Kaiser Foundation Health Plan. The law, the "Hawaii Prepaid Health Care Act", reduced the uninsured group of 17 percent to three or 4 percent immediately. The Hawaii health system has achieved:

- Universal access;
- Insurance rates cheapest in the nation with a general benefit package;
- Greatest longevity of any state;
- Lowest morbidity and mortality rate for cardiovascular, cancer, and lung diseases;
- Also, along with Vermont, it has the lowest infant mortality.

In 1990, with the *State Health Insurance Program* (SHIP), Hawaii resolved to take care of the remaining gap group of agricultural workers, dependents of low income employees, sales persons on commission and self employed. The *State Health Insurance Program* (SHIP), began to consider the group with incomes too high for Medicaid but below 300 percent of the federal poverty level. However the program provided only the most basic coverage and was criticized for failing to adequately provide for the gap population. Table 1, presents the income categories of the *State Health Insurance Program* (SHIP) to qualify.



Table 1

Category	Gross Income (\$)
Individual	< 20,400
Couple	20,400 - 26,382
Family of four	26,383 - 40,077

The benefit package of the *State Health Insurance Plan* (SHIP) fully covers the medical evaluation, related tests, and treatment of accidental injuries. Physician visits are limited to 12 per year, hospitalization to a maximum of five days. Two hospital days are allowed for maternity. Some tertiary care and elective surgery are excluded.

The State of Hawaii contracts with the Hawaii Medical Services Association and Kaiser Foundation Health Plan for two years in a commitment of \$10 million to fund the *State Health Insurance Plan* (SHIP). The enrollees pay part of the premium according to the income level and the state absorbs the rest. Patients also contribute a co-payment of \$5 per visit. The first year SHIP signed up 10,000 enrollees of the target group. In this group the majority had incomes between 62.5 and 100 percent of the poverty level.

By mandating coverage for everyone, the law established the premiums for groups of less than 100 employees to maintain lower costs. In 1990, the monthly premium for an individual in HMSA's comprehensive small group was \$94; in the Kaiser HMO Plan it was \$90. In Hawaii, the HMSA has 53 percent of the market, Kaiser Foundation 18 percent, Medicare 10 percent, Medicaid 7 percent, and the smaller plans the rest. The higher percent of the HMSA is explained by aggressive marketing methods. HMSA and subscribers share the cost of physician fees 80 and 20 percent, respectively, based on an 80 percent reimbursement of the total fee. Non-participating physicians collect a lower fee from HSMA.

On July 15, 1993, Hawaii received a Medicaid waiver for a demonstration project to combine the public program of Medicaid, SHIP and General Assistance under the Hawaii Health QUEST Program. The QUEST Program provides a standard package of benefits in what the state calls a "managed cooperative setting". In 1994, the focus of the state was the implementation of the Health QUEST Program. Enrollment in the program was originally scheduled for January 1, 1994 but start-up was deferred to July 1 to allow several provider networks to organize and submit bids.

In 1994, the legislature did not initiate any major new health care reforms except:

- creation of the "broken model" health alliance in anticipation of health reform



- establishment of mandatory community rating in place of the current voluntary system
- a revision of the Prepaid Health Care Act
- expand the state's pilot project for autonomous operation of all its community hospitals for three more years, to June 1998

Hawaii Health QUEST Program

Hawaii Health QUEST represents a comprehensive strategy designed to address several key health care reform strategies currently being debated at the national level. Hawaii is unique among the states for the comprehensive health care services coverage of its citizens. The cost of health care in Hawaii is lower than the national average, while the cost of living in Hawaii is generally 30-40 percent higher than the national average. As can be seen in the chart below, per capita health care expenses in 1988 were \$1,469 for Hawaii versus \$2,146 for the U.S. As a percentage of gross state product (GSP), consumption of medical goods and services account for 8.1 percent versus the nation's gross national product (GNP) of 11.1 percent. The State also enjoys the status of having the longest life expectancy.

Hawaii Health QUEST will address the following key issues:

Managed Competition. Promoting managed competition is consistent with the Administration's goal to encourage fully capitated health plans to compete for business. The demonstration project will provide several incentives for the health plans. First, a significant purchasing pool of a public client would be developed and existing and newly formed health plans would be encouraged to bid for this pool. Another incentive being offered to the plans is a standard benefits package that is consistent with health benefits packages offered in the private sector. Since the required services are consistent with those currently provided in the private sector, it is anticipated that services can be provided with relatively few changes to the plan's operations. The State is also limiting the exposure of costly and extraordinary care by developing a catastrophic coverage program. With these incentives, the State is confident there will be sufficient competition for the provision of services to its clients at a cost-effective rate.

Development of a Public Purchasing Pool. The Hawaii Health QUEST project will organize a purchasing cooperative, initially housed in the Department of Human Services. With the experience gained with the role and structure of a purchasing cooperative, the State could create new or expand the existing cooperative to purchase health care for other groups, including the elderly and disabled, public employees', workers' compensation cases, and small businesses.

Development of a Standard Benefits Package. Hawaii Health QUEST objectives are consistent with the national effort to move toward managed care. The standard benefits package is the means by which the state intends to restructure the current delivery system to emphasize cost containment and efficient provision of services while maintaining standards for quality. The State expects:

Improved Access to Care. One of the State's primary objectives is to improve access to a full range of care. Currently, SHIP participants have limited access to care because of the restrictions in the SHIP plan. For AFDC-related and GA recipients there are no limits on the number or type of visits. However, a full range of health care providers, particularly specialty providers, are limited in some parts of the outer islands and remote rural areas on Oahu. Since the health plans will be required to provide for a full complement of primary care and specialty providers and a comprehensive set of services to all recipients in all geographic areas, access barriers should be reduced.

Although Hawaii Health QUEST is specifically targeting the AFDC, GA and SHIP populations, it is anticipated that outreach and other education services undertaken by the Department of Human Services to publicize the program will encourage additional individuals who may qualify for, but are not currently enrolled in the existing programs to apply. Accordingly, Hawaii would move closer to achieving its goal of universal access to health insurance.

Improved Health Status. Under the program, recipients will have a primary care physician who would provide care and ensure access to specialists and other health services. Additionally, the benefits package offers a full range of services to children and incentives for adults to seek regular preventive care and to visit their doctors earlier to avoid more serious illnesses.

Encourage Appropriate Utilization. Under the current fee-for-service structure, recipients are allowed unlimited access to providers. The basic benefit plan with financial penalties and rewards (co-payment requirements and preventive services at no cost to the recipient) as well as the assignment of a primary care physician will work to modify recipient behavior to utilize health care resources more appropriately.

Cost-Effectiveness. Preliminary estimates indicate that the total cost of the program (premium payments and administrative costs) would approximately equal the existing program costs for AFDC, GA, and SHIP over the term of the demonstration project, and could result in significant savings. The demonstration project meets the federal cost-neutrality requirement of waiver requests, and assumes the federal government will maintain its current level of funding.

“Mainstreaming” of Public Clients. By developing a service delivery system consistent with the private sector, the State will provide health care in a manner similar to that of the private-paying population. This will make it difficult for providers to distinguish a public client from a private-pay client and could potentially eliminate or reduce perceived bias in the delivery of care to public clients. Additionally, since the recipients will be expected to participate in the same manner as private-pay clients (select plan, pay, premiums, co-payments), public clients are, in effect, “mainstreamed.”

“Seamless” Access. By combining the AFDC-related, GA, and SHIP programs, the State will be creating a “seamless” health care program. Applicants will be afforded a single point of entry to access health care. With all participants in one group, individuals need not apply for different programs as their needs and situations change. They will be able to continue to receive the same health care coverage as long as their incomes do not exceed 300 percent of the federal poverty level. If their incomes exceed the 300 percent level after they become eligible for the demonstration, they will be provided the opportunity to continue their coverage by paying the full premium rates.

THE PROPOSED SOLUTION IN HAWAII

Hawaii Health QUEST seeks to address the nation's as well as the state's need to stabilize health care costs and expand access to appropriate care. The project seeks to demonstrate that an approach consisting of the creation of a significant purchasing pool coupled with the development of a capitated standard benefits package focused on preventive care and managed care, can result in the provision of quality medical services at an affordable price to all citizens. The remainder of this section describes the major components of the demonstration project

Creation of a Significant Purchasing Pool of Public Clients

The demonstration will combine into one pool, the current populations of the Aid to Families with Dependent Children (AFDC-related) coverage groups, GA, and SHIP who receive medical assistance. Currently, the average monthly population of the AFDC coverage groups is 61,000 eligibles; GA is 8,100 eligibles and SHIP is 19,000 eligibles. If all populations are combined into one program, the result is a significant pool of 88,100 public clients.

This is important for three reasons. First, the combination of these three population groups creates a significant purchasing pool which will be used to encourage health plans to compete for the business. The likelihood of expanding this pool in later phases to cover other population groups offers an additional incentive for the plans to participate. Thus, the State anticipates



generating substantial interest in the project. This assumption has been tested and supported with several HMOs expressing interest in participating in the program.

The State also recognizes that it needs a more cost-effective mechanism for providing health care services. Relying on individual and piecemeal changes have not been successful or effective. By channeling a large population through a managed care system, the State believes that it can better provide essential services to recipients, encourage appropriate organization of services, and provide education to reduce high-cost, high-risk practices and focus on preventive care.

Finally, economies of scale can also be achieved through the creation of one large purchasing pool. Currently, AFDC and GA population groups are administered by the state Department of Human Services (DHS) while the SHIP population is administered by the state Department of Health (DOH). Under Hawaii Health QUEST, all potential enrollees will submit their applications to one State agency, the DHS. It is anticipated that this will reduce future administrative costs since there will be only one point of eligibility, one automated reporting system, and common procedures.

Standard Benefits Package

Hawaii Health QUEST incorporates a standard benefit's package designed to promote cost containment, encourage prudent resource utilization, and emphasize preventive care for medical, dental, and mental health services. The package was developed following:

- A review of recent utilization data of the recipient groups;
- A review of current benefit plans, offered within the State; and
- Discussions with HMOs and other health care industry representatives within the state regarding a standard benefits package.

The objectives of these action steps were to develop a package which:

- Meets the minimum requirements of HPHCA and addresses the medical needs of the targeted population.
- Is attractive to potential health care plans.
- Promotes cost containment and, efficient utilization of services, and emphasizes preventive care.

To accomplish these objectives, the more costly services have either been limited or not included in the standard benefits package. Long-term care services have not been included

in the basic medical plan. A “wrap-around” dental plan will be used to cover dental services for children and adults and a separate managed mental health program will be established for the seriously disturbed mentally ill and chronic substance abusers. Finally, the State, in conjunction with the plans, will make available catastrophic coverage for inpatient expenses more than \$50,000 per year. The State and the plans will equally share in the risk for payments or equivalent costs between \$50,000 and \$100,000. More than \$100,000, the State assumes a larger portion of the payment or equivalent cost. This approach significantly reduces the risk to the health plans and is anticipated to lower the overall cost of providing basic health care.

Services required by the basic medical plan include inpatient hospital coverage for medical, surgical, maternity and psychiatric services as well as outpatient visits to physicians, specialists, and the emergency room. The plan emphasizes preventive care for children, and all EPSDT services will be provided at no cost to the recipient. Office visits, prescription drugs, radiology, laboratory and diagnostic tests, as well as medical equipment and supplies not included in hospital or physician visits for children will also be provided at any cost to the recipient. Adults will be provided preventive care (e.g., physicals) at no cost to the recipient, but will be assessed a nominal co-payment of \$5 per physician office visit. Adults will also be assessed co-payment amounts for prescription drugs except for maintenance prescriptions, prenatal vitamins and birth control pills. In order to discourage inappropriate utilization of the emergency room, a co-payment of \$25 for non-emergency visits will be assessed. Co-payments for true emergencies will be waived. The basic benefit plan also provides for limited mental health office visits and subacute services. Subacute care is defined as transitional care provided to those who no longer need acute care but require a higher level of skilled nursing care. Transitional subacute care focuses on shorter term cases where the patient requires additional skilled nursing services before being discharged.

A separate dental plan will be acquired to cover all adult and child recipients for EPSDT and office visits. Consistent with the medical plan, the dental plan will emphasize preventive care. EPSDT and office visits will be provided at no charge to children. Adults will be provided preventive and emergency care at no charge, but will be assessed a nominal co-payment for non-preventive, non-emergency office visits.

Seriously disturbed mentally ill and chronic substance abusers will be placed in a fully capitated managed mental health program. The health plans will remain responsible for covering the medical and dental needs of these individuals.

Capitated Health Plan

The standard benefits package is intended to be fully capitated. That is, the State will contract with different plans to provide medical, dental and mental health services to all its enrollees



at a fixed monthly rate. Prepaid fully capitated plans are viewed as a viable approach for Hawaii because there currently are a number of established plans serving the general population throughout the State. This is an important consideration, because the demonstration project will be implemented Statewide and adequate geographic coverage is considered essential for success. Equally important is the acceptance of these plans by the recipients and providers. The provider community has been briefed on Hawaii Health QUEST and endorses the project. The Health Care Association of Hawaii supports the State's position that fully capitated managed care plans can control costs and ensure access to quality care.

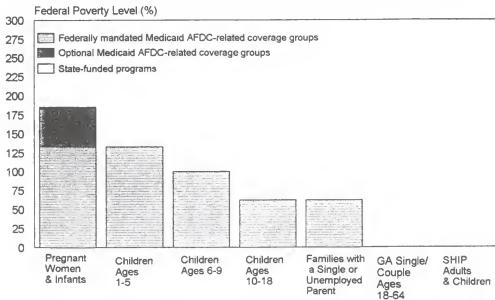
The number of established plans in Hawaii indicates that there are a sufficient number of competitors in the marketplace to provide the State with competitive bids. Since the proposed services in the standard benefit's package are similar to those currently provided in the private sector, it is anticipated that the services can be offered with relatively few changes, if any, to the health plan's operations. Thus, interest is expected to be generated by the private sector to participate in this project.

Although the State intends to cover all of its clients through fully capitated plans, it recognizes that in some areas, primarily rural, no plans may be available. For these few individuals, the State will, if necessary, purchase indemnity health insurance. The insurance will cover the same level of services identified in the standard benefits package and will require the beneficiary to select a single primary care provider to provide care through a managed care approach.

ELIGIBILITY STANDARDS

Hawaii Health QUEST will provide coverage to the current AFDC groups (families, pregnant women and children), GA, and SHIP populations. This section describes the current eligibility rules in Hawaii and then outlines the new eligibility procedures under the demonstration. Refer to Graph 1 for the various groups covered under the Medicaid and SHIP programs.

Graph 1
Current Medicaid, GA and SHIP Eligibility in Hawaii



Source: The Hawaii State Department of Human Services, Hawaii's Health QUEST, 1994

Current Medicaid

The Hawaii Medicaid program provides health care coverage to the following eligible groups: AFDC; the aged, blind, and disabled; low-income persons with excessive medical expenses, generally as a result of a catastrophic or chronic illness. Hawaii covers all mandatory Medicaid groups as well as several optional eligibility groups. Since the aged, blind and disabled coverage groups present many different issues, only KFDC-related coverage groups will be included in Hawaii Health QUEST.

Current General Assistance (GA)

The GA program is fully State-funded and provides financial and medical assistance to those persons who do not meet the Medicaid "categorical" or demographic requirements, but meet

the financial criteria. This population consists mostly of single adults, childless couples and adults in two-parent families. The GA program offers benefits identical to Medicaid to persons age 19 through 54 who are temporarily disabled and medically "unemployable." To be deemed "unemployable," the individual must be unable to work for more than 30 full-time days due to a medical or psychiatric condition. The GA program also covers individuals aged 55 through 64 who may be able-bodied and meet the work-search requirements, or are temporarily disabled. Applicants for the GA Program are subject to the same basic and financial eligibility requirements as the Medicaid recipients, and must meet additional eligibility requirements, such as work-search, established by the Hawaii Revised Statutes. All GA participants will be eligible for the demonstration project.

Current State Health Insurance Program (SHIP)

The SHIP program was designed to target the so-called "gap group" - an estimated 35,000 people. This group was thought to consist of:

- Unemployed individuals
- Women, as spouses of low-income workers and elderly women not qualifying for Medicare
- Part-time workers, employed for less than 20 hours per week and therefore not covered under Hawaii's Prepaid Health Care Act
- Children of low income workers
- Self-employed and seasonal workers, immigrants and students.

To qualify for SHIP, an individual must intend to reside in the State, not have a family income exceeding 300 percent of the federal poverty limit, and not be covered by health care insurance, including Medicare, or any public assistance program, primarily Hawaii's Medicaid Program. SHIP does not employ the concept of categorical eligibility. All SHIP eligibles will be included in this waiver project.

Proposed Eligibility under the Demonstration

The Hawaii Health QUEST project will include all current eligibles in the AFDC, GA, and SHIP programs. Individuals currently in the Aged, Blind, and Disabled, SSI programs, Refugee Cash and Medical Assistance programs, and Medical Payments for Pensioners programs will not be included in this phase of the demonstration and will continue to be eligible for and receive Medicaid services under the current rules. The State anticipates that this project will eventually be expanded to include other population groups such as the age, blind and disabled,



public employees, workers compensation cases, and small businesses. Refer to Table 2 for a comparison of the current and proposed eligibility requirements.

Table 2
Eligibility Requirements
Current Medicaid and SHIP and Proposed Program

Eligibility Requirement	Current		Proposed
	Applicable to AFDC and GA	Applicable to SHIP	Applicable to Waiver Program
Basic Eligibility			
U.S. Citizen/Permanent Resident	Yes	No	Yes
Alien			
Intent to Reside in Hawaii	Yes	Yes	Yes
Verified Social Security Number	Yes	No	Yes
Not in a Public Institution	Yes	No	Yes
Categorical Eligibility			
Meet requirement of a Medicaid coverage group, such as aged, blind, disabled, AFDC, or GA	Yes	No	Yes Must not be aged, blind, disabled
Financial Eligibility			
Maximum Asset Retention Limit	\$2,000 for one \$3,000 for two \$250 for each additional person	Not applicable No maximum asset limit	Not applicable No maximum asset limit
Income Limits	100% to 185% of Federal poverty limit for certain categorically needy groups 62.5% of Federal poverty limit for the medically needy and mandatory categorically needy	300% of the Federal poverty limit	300% of the Federal poverty limit
Miscellaneous Requirements			
Prohibition of the Health Care Coverage	No	Yes	Yes, if provided by employer under the Hawaii Prepaid Health Care Act
Dependent Children Age 19 or Older Allowed to be Covered Parent's Assistance Unit	No	Yes	Yes
Recognition and Subsequent Coverage of "Common-Law Spouses; Requirement of Mutual Financial Support Between "Common-Law "Spouses"	No	Yes	No



Eligibility Criteria

All participants in the demonstration project will be required to meet the following basic Medicaid eligibility criteria:

- Be a U.S. citizen or legal alien resident
- Intend to reside in the State of Hawaii
- Provide a verified Social Security Number (SSN)
- Not reside in a public institution, including correctional facilities and public health facilities.

Because the demonstration project will maintain the current basic Medicaid eligibility requirements, only existing SHIP participants are expected to be affected. However, no significant reduction or increase in the number of participants is anticipated. Although SHIP does not currently require verification of citizenship, legal alien status, or social security number, these are typical requirements for work and most SHIP participants are either working or actively seeking employment. Thus, it is expected that current SHIP participants will meet these requirements.

Currently the SHIP program disqualifies persons with any medical coverage, including Medicare and Medicaid. The demonstration project will allow third party liabilities (TPL) as is the present situation with Medicaid, with the exception of insurance coverage by an employer under the Hawaii Prepaid Health Care Act. That is, all adult employees receiving health benefits provided by their employers will be disqualified from this program. Dependent children and spouses, however, who are not mandated by Hawaii law to be covered by their parents' or spouse's employers, may qualify for the demonstration. Thus, it is possible that additional persons currently excluded from participation in SHIP will now become eligible for the demonstration project. It is also possible that some working Medicaid and GA participants will be excluded from participation. For both situations, the number of persons affected by this change in eligibility is expected to be minimal. The health plans will be required to collect TPL and adjust their annual capitated rates for these collections.

SHIP currently requires participants to pay for a portion of the monthly premium based on a sliding scale relative to income and requires the health plans to bill and collect for the participant's monthly share. These features will be retained in the demonstration project. The participant's share will apply to all adults and children with incomes above 100 percent of the federal poverty level (FPL). Existing AFDC-related categories, specifically pregnant women and infants up to 185 percent FPL and children one to five years of age up to 133 percent FPL, which is currently covered by Medicaid, will be subject to the sliding scale. Adults and children will be required to pay the following percentages of the premium amounts.

FPL Range	% Share of Premium
100% or less	0
101% to 125%	10
126% to 150%	20
151% to 175%	30
176% to 200%	50
201% to 225%	70
226% to 250%	80
251% to 275%	90
276% to 300%	95
Greater than 300%	Full premium rate

Since the Hawaii Prepaid Health Care Act only requires employers to cover employees who work 20 hours or more per week, it is possible that some eligibles may eventually have income which exceeds the 300 percent FPL threshold, but still not have access to health insurance (multiple part-time jobs). The State will provide these persons the option to remain in the program, provided they pay the full premium amounts. The health plans will be responsible for billing and collecting these premiums.

Eligibility Determination

The project will provide presumptive eligibility based on the submitted application. If the applicant's income is below 300 percent FPL, the individual will be determined eligible and enrolled into a health plan. The applicant will sign an affidavit assuring the State that he or she will refund the cost of the premiums, if after verification, he or she is later determined to be ineligible for the program. Eligibility will be determined at least once per year.

Retroactive Eligibility

Three months retroactive coverage will be waived under Hawaii Health QUEST. Because of the planned outreach efforts to notify existing and potential clients of the Hawaii Health QUEST project and the incentives to enroll created by the standard benefits package, the State anticipates enrolling a number of the currently uninsured individuals. Additionally, the State will be providing presumptive eligibility; therefore, eligibles will be enrolled almost immediately into health plans, and there should be no delay in obtaining coverage. By implementing these two features, the State will have reduced the need to provide retroactive coverage since fewer people will be without any form of medical insurance.

STANDARD BENEFITS PACKAGE

The primary objectives of the standard benefits package are to promote cost containment, encourage prudent resource utilization, and emphasize preventive care. Presently, the AFDC related and GA populations have the same health care coverage, whereas, SHIP participants have a more restrictive level of benefits. The Hawaii Medicaid program currently provides comprehensive health care coverage for inpatient and outpatient hospital services; laboratory and radiology services; physicians and specialists office visits, drugs, physical, occupational and speech therapy, dental, psychiatric and other health services and supplies. In contrast, SHIP provides minimal and fairly restrictive health benefits offering 12 physician office visits per year (excluding emergency, preventive, and maternity office visits), diagnostic tests, surgical services, and “medically necessary” inpatient care not to exceed five days per year. The SHIP population is currently underinsured since the benefits provided to them do not meet the minimum benefits specified in the Hawaii Prepaid Health Care Act.

Hawaii Health QUEST will provide to all eligible population groups a standard benefits package consistent with the services currently covered by Medicaid. The standard benefits package is summarized in Table 3. It is a comprehensive package providing for medical, dental and mental health which will be covered under separate contracts.

Basic Medical Plan

The basic medical plan will include inpatient hospital, outpatient hospital and physician and specialist office visits. The plan emphasizes preventive care by requiring Early and Periodic Screening, Diagnosis and Treatment (EPSDT) services for all children up to the age of 21. By requiring UPSTATE participation, the State of Hawaii seeks to significantly improve preventive screening and treatment for children. By providing limited preventive care (e.g., physicals) for adults and all radiology, laboratory and diagnostic work for children and adults at no cost to recipients, the State hopes to detect health problems early and reduce the incidence of more serious (and costly) illnesses or hospitalization.

Co-payments will be required for certain adult services. Services for children (age 18 and younger) will be provided at no charge to the recipients. The purpose of the co-payments is to 1) encourage more effective utilization of services; and 2) encourage recipients to acknowledge financial responsibility for their health care. The co-payments in the proposed program will be set similar to the co-payment rates of typical health plans. Specifically, adults will be assessed \$5 per physician visit, \$25 per medical and surgical hospital admission, and \$25 per emergency room visit determined to be a non-emergency situation. The co-payment for emergency room is established at this high level to discourage use of the emergency room for non-urgent care and will be waived for true emergencies in order to avoid penalizing patients who use the emergency room appropriately. Additionally, patients will be assessed



Table 3
Standard Benefits Package

Service Category	Limits	Co-payment
Inpatient Hospital		
* Medical	120 Days/Yr	\$25 Days/Admission
* Surgical	120 Days/Yr	\$25 Days/Admission
* Rehabilitation	120 Days/Yr	None
* Psychiatric	15 Days/Yr	None
* Detox	5 Days/Yr	None
* Maternity	2 Days-Normal 4 days-Cesarean	None
* Transitional (Subacute) Care	30 Days	None
Outpatient Hospital		
* Emergency Room	None	\$25/Visit
* Ambulatory Surgery Center	None	None
* Psychiatric	12 Visits/Yr	None
Preventive	Mandatory EPSDT participation	None
Prescription Drugs	Generic brands-(or equivalent if generic unavailable)	\$2 - Generic \$5 - Multi-source brands
Radiology/Lab/Diagnostic	None	None
Physician	25 Office Visits/Yr	\$5/Visit
Other Practitioners	None	None
Home Health	None	None
Child Dental	EPSDT coverage only less emergency condition exists	None
Adult Dental	\$250/Yr	\$5/Visit
Managed Mental Health	None	None
Excluded Services		
Chiropractic	Personal Care	Medical Social Worker
Infertility and sex transformation Procedures	Private Duty Nursing	Residential Treatment for Substance Abuse

a co-payment of \$2 per generic drug and \$5 for "name brands." Maintenance prescription drugs, prenatal vitamins, and birth control pills will be exempt from the drug co-payment charge. Drugs with no generic equivalent or generic drug equivalents which have been shown to be ineffective will be assessed the \$2 co-payment charge. Health plans will be provided with a drug formulary identifying acceptable generic, brand name and maintenance drugs.

Basic Dental Plan

A separate dental plan will be acquired to cover all demonstration participants. Although the State may contract with several medical plans, there will be only one contract for the dental plan. There are several reasons for electing to utilize one contractor and separating dental from medical. The State anticipates obtaining a lower capitated rate with one contract. Since

dental coverage is not standard in private benefit plans, it is possible that some plans would have to subcontract with a dental plan if dental and medical coverage were combined into one contract. The additional administrative cost for managing that contract would most likely be included in the plans' capitated rates. Conversely, some Hawaii plans specialize in dental coverage and would have to subcontract the medical coverage if they are to become participants in Hawaii Health QUEST. Thus, separating the medical and dental benefits into two separate plans would increase the potential number of bidders (some plans may only bid medical; some only dental and others, both) as well as contain costs. Consistent with the medical plan, the dental plan will emphasize preventive care. EPSDT visits for children and preventive and emergency care for adults will be provided at no charge to the recipients. Children will not be subject to any limits in services, but adults will be subjected to a \$250 limit for non-preventive, non-emergency office visits. Additionally, adults will be assessed a nominal \$5 co-payment for non-preventive, non-emergency office visits.

Managed Care for Mental Health

The basic medical plan limits mental health office visits to 12 visits per year, hospitalization to 15 days per year, and medical detoxification to five days per year. The plans are expected to cover acute mental health episodes and to arrange for supplemental managed mental health when it has been determined that the patient is seriously disturbed mentally ill (SDMI) or has chronic alcohol or substance abuse problems. These individuals require uninterrupted outpatient care specifically tailored to their needs. Thus, the State will develop a separate fully capitated managed mental health program which will address the specialized needs of these individuals.

It is anticipated that by obtaining separate capitated contracts for medical, dental and managed mental health services, and by reducing the risk (and therefore cost) to the plans by eliminating long-term care and developing a managed mental health program, the State will be able to obtain lower than market bids for all services.

CATASTROPHIC COVERAGE

The State, in conjunction with the qualifying plans, will provide catastrophic coverage for expenses more than \$50,000. The health plans will be responsible for all payments or equivalent expenditures up to and including \$50,000. The State and the plans will share equally in the risk for payment or equivalent costs more than \$50,000 and up to \$100,000. Thereafter, the State will cover a proportionately larger share of payments or equivalent costs. A sliding scale identifying the State and the plans proportionate shares will be developed. At no time, however, will the State assume all risk in covering all payments or equivalent costs. Also the state will work closely with the health plans to determine whether any patient should be permanently placed in long term care or subacute facilities. If such a determination is made, the state will disenroll these persons from the health plan and cover them under other appropriate Medicaid programs (such as SSI).

Source: In Pursuit of Keeping Hawaii Healthy: Hawaii's Health QUEST
The Case For Restructuring Health Care in the United States: The Hawaii Paradigm, Fred J. Gilbert, Jr.
& Robert A. Nurdyke
Health Care Reform: What does Hawaii have to teach?, Mark Holoweiko
Intergovernmental Policy Project, State of Hawaii, July 1994.



Summary of major principles

Hawaii

Universal Coverage

The "Hawaii Prepaid HealthCare Act" requires health coverage for employees who work 20 or more hours per week for a month or longer through either an indemnity plan or a health maintenance organization (HMO). Dependents, while not officially covered, are included by virtue of the competition between employers. In 1990 the "State Health Insurance Program" (SHIP) resolved assume responsibility for the remaining gap groups of agriculture workers dependents of low income employees, sales person on comission, self employed and so forth.

Benefits

The benefits package of the "State Health Insurance Program" (SHIP) fully covers the medical evaluation, related test, and treatment of accidental injuries. Physician visits are limited to 12 per year, hospitalization to a maximum of 5 days. For maternity two hospitals days are allowed. Some tertiary care and elective surgery are excluded. On July 15, 1993 Hawaii established the "QUEST" program that provides a standard benefits package in a "managed cooperative setting".

Access

Financial Barriers: The program provides only the most basic coverage. By demanding coverage for everyone, the law established the premiums for groups of under 100 employees to maintain lower costs. In 1990, the monthly premium per individual in HMSA'S comprehensive small group was \$94, in the Kaiser HMO Plan it was \$90.

Geographic Access: Improved Access to Care - One of the State's primary objectives is to improve access to a full range of care. Currently, SHIP participants have limited access to care because of the restrictions in the SHIP plan. For AFDC-related and GA recipients there are no limits on the number or type of visits. However, a full range of health care providers, particularly specialty providers, are limited in some parts of the outer islands and remote rural areas on Oahu. Since the health plans will be required to provide for a full complement of primary care and specialty providers and a comprehensive set of services to all recipients in all geographic areas, access barriers should be reduced.



Financing

The enrollees pay part of the premium according to the income level and the state absorbs the rest. A copayment of \$5 per visit is responsibility of the patient. In 1990, the legislature established a mandatory community rating.

Organization and Administration

On July 15, 1993, Hawaii received a Medicaid waiver for a demonstration project to combine the public program of Medicaid, SHIP and General Assistance under the Hawaii Health QUEST Program. The QUEST Program provides a standard package of benefits in what the state calls a "managed cooperative setting". In 1994, the focus of the state was the implementation of the Health QUEST Program. Enrollment in the program was originally scheduled for January 1, 1994 but start-up was deferred to July 1 to allow several provider networks to organize and submit bids.

Hawaii Health QUEST will address the following key issues:

- Managed Competition
- Development a Public Purchasing Pool
- Development a Standard Benefits Package
- Improved Access to Care
- Improved Health Status
- Encourage Appropriate Utilization
- Cost-Effectiveness
- "Mainstreaming" of Public Clients
- "Seamless" Access

The State also recognizes that it needs a more cost-effective mechanism for providing health care services. Relying on individual and piecemeal changes have not been successful or effective. By channeling a large population through a managed care system, the State believes that it can better provide essential services to recipients, encourage appropriate organization of services, and provide education to reduce high-cost, high-risk practices and focus on preventive care.

Finally, economies of scale can also be achieved through the creation of one large purchasing pool. Currently, AFDC and GA population groups are administered by the state Department of Human Services (DHS) while the SHIP population is administered by the state Department of Health (DOH). Under Hawaii Health QUEST, all potential enrollees will submit their applications to one State agency, the DHS. It is anticipated that this will reduce future administrative costs since there will be only one point of eligibility, one automated reporting system, and common procedures.

Community Participation

None has been contemplated.

Appendix D

Minnesota Health Care Reform

Background:

The state of Minnesota has now completed three years of major reforms to restructure the financing and delivery of care. In 1994, the state adopted an objective of universal coverage, using an individual mandate, to be completed by July 1, 1997. Minnesota has already taken several significant steps toward preserving or expanding its citizen's access to health insurance and to health care.

In the first stage of the reform, a universal access measure suffered a veto, but a year later, the Health Right Act of 1992 expanded publicly subsidized coverage for low income uninsured persons. It also created a state-sponsored purchasing pool for small businesses, outlined a system for managing costs and setting targets for reducing health care cost inflation, imposed reforms on the individual and small group insurance markets, gave a tax exemption for insurance to self-employed persons, and addressed gaps in the delivery system. The expanded coverage is funded through revenues from an increase in cigarette tax, a tax on hospitals and other health provider's gross patient revenues, and a tax on nonprofit health service plans.

In 1992, the legislature created a Health Care Commission, consisting of 25 members representing government agencies, the legislature, consumers, business, unions, providers and insurers to develop a plan to insure access to affordable health care for all Minnesotans. The commission conducted research, including surveys of more than 10,000 households and 1100 employers and legal and actuarial analysis, held 19 public hearings, and compiled voluminous testimony.

The commission found that people with inadequate access to health care included the underinsured, the uninsured, and insured persons who faced high financial barriers to basic care. The law established a commission to set targets to reduce by at least 10% the annual rate of increase in health care spending, and develop proposals to achieve the targets.

The Health Right Act of 1992 extended health coverage by expanding the Children's Health Plan(CHP), enacted in 1988. Originally a program for children, the 1992 legislation called for expansion of coverage for families with children above the Medicaid income level and culminating in coverage for all persons up to 275% of the Federal Poverty Level (FPL). The former expansion along with the inclusion of single adults and families without children, with

incomes of up to 125% of FPL have been implemented. The inclusion of beneficiaries up to 275% of FPL is planned for October 1, 1995. The 1992 law featured substantial insurance reform in the small employer (fewer than 30 employer) and individual markets.

Benefits and eligibility are closely coordinated with Medicaid, with emphasis on primary, preventive, and mental health outpatient care and up to \$10,000 per patient annually for hospital care, with a 10% copayment.

The MinnesotaCare Act, passed in May 1993, focused its reforms on cost-containment and restructuring the delivery system so that providers would either contract with "integrated service networks (ISN's) or be reimbursed in a rate-regulated all payer environment. It also approved a data collection system, a health technology assessment process, antitrust exemptions and additional studies. The most notable aspect of the plan was the objective to reduce the actual growth rate for all health spending by 10% per year for each of the next five years.

The third Stage of reform was enacted in 1994, calling for implementation of the ISN's and a regulated all payer option, but full implementation could take until July 1997. Community integrated service networks (prepaid managed care plans serving 50,000 or fewer enrollees) may form beginning January 1, 1995. Providers are encouraged to form these small plans because of concerns that market consolidation in Minnesota could cause a monopolistic rather than a competitive system.

The law calls for implementation and transition plans to be developed, including a plan to unify various publicly funded programs with the private market and a system for coordinated purchasing of all state-funded programs including state employees group insurance.

Role of Governmental Bodies

Commissioner of Health

the Minnesota Commissioner of Health has been given primary authority for the implementation of health care reform activities.

Legislative Commission on Health Care Access

this group of 10 legislators review the activities of the Commissioner of Health, the Minnesota Health Care Commission, and other state agencies in the implementation of health care reform legislation.

Minnesota Health Care Commission

work to improve the affordability, quality and accessibility of health care.



<i>Technology Advisory Committees</i>	evaluates new and existing health care technologies and procedures.
<i>Regional Coordinating Board</i>	appointed to provide regional input and facilitate local collaborative efforts to improve access, quality and affordability.
<i>Public / Private Data Institute</i>	this 20-member board will direct and coordinate public and private sector data collection efforts.
<i>Practice Parameters Advisory Committee</i>	develops practice parameters to avoid unnecessary and ineffective treatment and services.
<i>Rural Health Advisory Committee</i>	a 15 member commission that makes recommendations toward providing a systematic and cohesive approach to addressing rural health issues and rural health care planning, at both a local and statewide level.

Eligibility

As of June 1, 1993, over 53,000 previously uninsured Minnesotans already receive insurance coverage through the Minnesota Care program. The state projects that, by 1997, more than 170,000 people (almost 50 % of Minnesota's uninsured population) will be enrolled. The requirements for eligibility are:

- be a permanent Minnesota resident
- not eligible for Medicaid assistance (Medicaid)
- not covered by any other health insurance for last four months
- unable to get employer-paid health insurance (50% or more of premiums) for last 18 months
- meet income guidelines
- individuals and families without children can enroll July, 1994

Premium Costs

Children at or below 150% of FPL pay a premium of \$48/year or \$4/month. All others pay premiums based on family size and income (Table 1).



Table 1
Enrollee Premiums

Gross Monthly Income	Family Size and Number Covered		
	2	4	6 or more
\$1,000	\$31	\$18	\$15
\$2,000	\$175	\$76	\$62
\$3,000	Not eligible	\$264	\$144
\$4,000	Not eligible	Not eligible	\$321

Source: Minnesota Department of Health, 1994.

Small Group Reform and Individual Market Insurance Reform

The Insurance reforms in the 1992 law discourage insurers from denying coverage to high risk groups and individuals, and will prohibit such denials in the small employer market. These reforms (effective July 1, 1993) include:

- carriers may not refuse to cover or to renew a small employer group and may not refuse to renew an individual policy
- carriers may not carve out high risk individuals from a covered group
- carriers may not base premium rates on gender
- carriers must offer premium rates to small employers and individuals that are no more than 25% below their index rate, and divergences from the index rate may be based only on experience and health status
- carriers may not limit coverage based on preexisting conditions for longer than 12 months
- increase the limit age to 25 for full-time students.

Small Employer Plan

The 1992 law requires that carriers offer the "small employer plan" to any small employer who wishes to purchase it. The plan provides inpatient and outpatient hospital services, physician and nurse practitioner services, x-rays and lab tests, ambulance services, durable medical equipment, maternity and prenatal care, and some chemical dependency, mental health, and prescription drug coverage.



Minnesota Comprehensive Health Association (MCHA)

The Minnesota Comprehensive Health Association (MCHA), was founded in 1976 as the nation's first high risk pool and now covers 35,000 Minnesotans. MCHA is an important part of Minnesota's strategy for promoting access to coverage, by insuring high risk individuals who are self employed, retired, or employed by firms that do not provide insurance.

Tax Deductible for the Self Employed

The 1992 law increased from 25% to 100% the portion of health insurance premiums that may be deducted by the self employed from their state income tax.

Accessibility

Access to Medicaid Providers

The 1992 law took two steps to eliminate the access problem due to the reluctance of providers to serve Medicaid enrollees. Provider reimbursed rates, particularly for primary and preventive care, were increased by 25%, in order to narrow the gap between the financial rewards for treating privately insured patients and Medicaid patients. Additionally, Providers and HMO's are required to accept enrollees from this program and from Medicaid in order to participate in the state Employee Health Program, high risk pool and the workers compensation program.

Rural Health Care

The state will provide technical and financial assistance to the community health centers, which will be locally operated and will encourage the use of midlevel practitioners. State funds provided to community health centers must be matched by local funding.

Health Professional Education

Minnesota's reforms include funds to encourage development to certain hospitals in rural areas, and grants to rural hospitals. It also provides for loan forgiveness for primary care physicians, nurses, midlevel practitioners, meeting the needs of underserved populations.

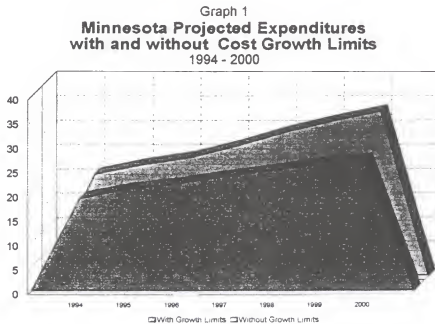
To expand the supply of primary care providers in the state, the law encourages the University of Minnesota Medical School to adopt initiatives to increase the number of graduates of residency programs in primary care. These initiatives will result in an increase of 20% per year, for each of the next eight years of primary care practitioners.



Cost Containment

Two basic strategies were established to control the growth in health spending: reconfiguration of the delivery system and regulatory controls on the amount that cost can increase. Through six regional boards, a statewide commission and several advisory committees, development and promotion of both strategies has begun.

With the implementation of the cost containment plan, Minnesota health care consumers can expect to save over \$7 billion by 1998 (Graph 1).



Source: Minnesota Department of Health, 1994

Delivery System Reform

The 1993 law replaces the current delivery system, still largely based on traditional fee for service medicine, with a new, two part system: integrated service networks and all payer system.

Integrated Service Networks

They may be formed by health maintenance organizations, insurers, hospitals, providers, local government, purchasers, or by some combination of those entities. ISN's will contain costs in several ways, specifically, they will create incentives not to provide unnecessary or marginal care. Delivery of care through provider networks will bring about provider collaboration to achieve economies of scale, eliminating an enormous amount of unnecessary duplication. ISN's benefit packages will be standardized.

All Payer System

The state will set provider fees in the all payer system, and will establish utilization controls and restrictions on provider conflict of interest and self referral. This system will assure that, even outside of ISN's there are no incentives to drive up fees, utilization, and insurance premiums.

Regulatory Control of Spending Growth

The expenditure limits are designed to carry out the requirement of reducing the growth rate of health care spending by 10% per year for 5 years.

Transitional Limits

The transitional 1994 and 1995 limits (toward ISN/All payer system) apply to both providers and payers. In 1994, providers may not increase their annual per patient revenues more than 6.5% plus the increase in the CPI; in 1995, that limit drops to 5.3% plus the increase in the CPI.

Insurance premiums will be regulated and reserve levels monitored to assure that insurers pass on to consumers the savings resulting from provider fee limitations and from the limits on insurer expenditures. Providers or payers that exceed the revenue or expenditure limits will be required to pay an assessment to the state, equal to the excessive amount.

Growth Limits for New Delivery System

The limits applicable to ISN's and to the all payer system will work in a similar way. Each ISN will be required to keep its revenues and spending within the statutory growth rates, and will be sanctioned for any excess spending. The same limits will be imposed on the all/payer system as well, and may be enforced through adjustments of a fee schedule.

Data Collection and Analysis

The success of reform depends significantly on access to valid and reliable data that serve multiple purposes. First, for the purpose of setting, enforcing, and adjusting expenditure limits, the state must be able to track total statewide spending to monitor system wide success in limiting the growth in health care expenditures, and to form the basis for setting organization specific rates or limits.

Secondly, the state and the public must be able to compare health plans and providers on the basis of cost, access and quality , so as to hold health plans and providers accountable for access to care and quality of care.



Data Institute

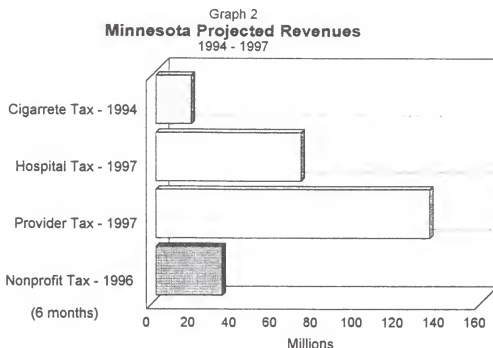
A public/private data institute, governed by a 20 member board of directors will direct and coordinate public and private sector data collection efforts, while protecting individual privacy and minimizing administrative costs.

Information Clearinghouse

The Commissioner of Health will provide data for purchasers and consumers on health care cost and spending, quality and outcomes, and utilization. This information should assist group purchasers and consumers in making informed purchasing decisions.

Financing

The total cost of the health care reform package for the 1994-95 biennium, including the program for the uninsured, rural health initiatives, higher education programs, cost containment initiatives, insurance regulation and other activities, is expected to be about \$237 million. The projected revenues for 1994 through 1997 is \$254.3 million (Graph 2).



Source: Minnesota Department of Health, 1994

Source: Minnesota Department of Health, 1994
Intergovernmental Health Policy Project, July 1994
Minnesota Health Care Reform Waiver, Minnesota Department Of Human Services
and the Department of Health

Summary of major principles

Minnesota

Universal Coverage

In 1994, Minnesota adopted an objective of universal coverage, using an individual mandate, by July 1, 1997.

Benefits

The plan emphasizes primary, preventive, and hospital outpatient care, allows up to \$10,000 per patient annually for hospital care, and offers 30 optional services. Expanded eligibility for women and children and Medicaid managed care demonstration projects are included.

Access

Financial Barriers: In 1992 legislation initiated expansions of coverage for children and families with children above the Medicaid income level and culminating in coverage for all persons up to 275% of the federal poverty level. For hospital care a 10% copayment is required.

Geographic access: Medical education reforms to improve provider availability: medical students receive financial assistance for tuition, loans, or debts in return for practicing for a specified period of time in underserved areas or in specialties where there is a shortage of doctors. Similar programs for other health practitioners.

Financing

The plan is to be financed by a cigarette tax, a 2% tax on hospitals and health care providers, and a 1% tax on insurers' gross revenues (excluding Medicaid, Medicare, Medical Assistance, or MinnesotaCare services). Financially imperiled hospitals were exempted from the health service tax. The 1997 budget is estimated to be \$300 million.

Organization and Administration

The 1993 Minnesota Care Act established a Commission of Health and charged it with advising on: the implementation of the integrated service networks, and the all payer rate-setting systems, identifying other cost containment strategies, and the development of a comprehensive universal health care plan, at a cost of no more than \$150 million.

Data Institute established to develop an extensive data collection system on cost, quality, and outcomes. Office of Consumer Information established by the Department of Health will publish uniform quality cards.

Community Participation

The Minnesota Health Care Commission created in 1992, include representation by consumers, employers, health plans, providers, unions, and state agencies.



Appendix E

Oregon Health Care Reform

History and Background

The rising costs of medical care and the growing number of people unable to afford it threaten the social and economic health of Oregon and the rest of the country. The root of the problem lies in the lack of an explicit health policy and rational and equitable means of allocating health care resources. The system has evolved piecemeal with no long-term policy objective, creating enormous coverage gaps and contributing to rising costs.

Beginning in 1987, a group, that included health care providers and consumers, business, labor, insurers and lawmakers, agreed on a common objective - keep Oregonians healthy. They addressed three basic questions: who is covered, what is covered, how is it financed and delivered? They then developed a political strategy to attain their objective.

They agreed that:

- All citizens should have universal access to a basic level of care
- Society is responsible for financing care for poor people
- There must be a process to define a "basic" level of care
- The process must be based on criteria that are publicly debated, reflect a consensus of social values, and consider the good of society as a whole
- The health care delivery system must encourage use of services and procedures which are effective and appropriate, and discourage over-treatment
- Health care is one important factor affecting health; funding for health care must be balanced with other programs which also affect health
- Funding must be explicit and economically sustainable
- There must be clear accountability for allocating resources and for the human consequences of funding decisions

The result of this debate: from 1989-1993, the Oregon Legislature passed a series of laws known collectively as the Oregon Health Plan.

Legislative History:

Senate Bill 27 (1989) extended Medicaid coverage to Oregonians with income below the federal poverty level and guaranteed a set of benefits (Basic Health Care Package) based on a prioritized list of health services. This expansion required waivers of federal law from the Health Care Financing Administration (HCFA).

SB27 requires that Medicaid deliver services through managed care plans where possible. It also requires reasonable reimbursement rates to end the cost-shift due to Medicaid underpayment.

SB27 also created the Oregon Health Services Commission to rank medical services from most to least important to the entire population. The Legislature defines the Basic Health Care Package from this list.

Senate Bill 935 (1989, amended by SB 1076 in 1991) required employers by July 1, 1995 to cover employees working 17.5 hours or more per week and their dependents, or pay into a special state insurance fund which will offer coverage to those employees. This provision is known as Play or Pay or the employer mandate. Small employers receive tax credits for voluntary coverage before July 1995.

The 1993 Legislature delayed implementation until March 31, 1997, for businesses employing 26 or more; and to January 1, 1998, for those with 25 or fewer employees. The Legislature also asked for a study that will recommend the "best alternative to the employer mandate." The 1995 Legislature will decide whether that alternative is desirable.

To take effect, the employer mandate must obtain a Congressional exemption to the federal Employee Retirement Income Security Act (ERISA). The 1993 legislation also set a deadline for that exemption - if it does not occur before January 2, 1996, the employer mandate will be repealed.

Senate Bill 534 (1989) funded the Oregon Medical Insurance Pool (OMIP) which offers health insurance to people who cannot buy coverage because of preexisting medical problems.

Senate Bill 1076 (1991) made affordable insurance available to small businesses (3-25 employees). It created the Small Carrier Advisory Committee to design a basic benefit package similar to the Basic Health Care Package. All small-business insurance carriers in Oregon must offer this package.

Senate Bill 1077 (1991) established the Health Resources Commission to develop a process for deciding on the allocation of medical technologies in Oregon.



House Bill 5530 (1993) allowed the state to implement the Oregon Health Plan by:

- Funding the Medicaid expansion beginning Feb. 1, 1994, using general funds and a 10-cent-a-pack cigarette tax increase, and matching federal funds;
- Funding the Basic Health Care Package for 1993-95 to cover 565 of 696 services on the prioritized List of Physical Health Services;
- Funding integration of seniors and persons with disabilities into the Basic Health Care Package (pending federal waiver) either January 1, 1995, or within six months after waiver approval;
- Approving the gradual expansion of coverage for mental health and chemical dependency services for Medicaid clients by funding a benefit package covering 606 of 745 services on a list which integrates these services. Pending federal approval, the integration will begin on Jan. 1, 1995, and be completed by July 1, 1996;
- Creating the position of Oregon Health Plan Administrator.

Oregon Health Plan Administrator:

The Oregon Health Plan Administrator coordinates health care reform and address issues including:

- defining a basic benefit package and responsibilities of employers, employees and the state in the employer mandate program
- developing other potential ways to achieve universal access such as an "individual mandate," single-payer system, or expansion of voluntary programs
- developing an individual health plan option for low-income Oregonians and seasonal or part-time employees who might not otherwise be covered under the Oregon Health Plan
- developing a "consumer scorecard" to assist in selecting from among health plans or providers
- recommending ways to increase the efficiency and effectiveness of health care delivery and contain costs

Medicaid Expansion and Reform:

Oregon is operating a five-year demonstration Medicaid project under the Oregon Health Plan. This project, which began February 1, 1994, is operated under a waiver of traditional Medicaid rules. The waiver was granted in March 1993 by the U.S. Health Care Financing Administration.

The demonstration project currently covers some 180,000 persons who are eligible for traditional Medicaid, plus an estimated 120,000 others who have low income but do not qualify for traditional Medicaid. The state currently is seeking additional federal waivers to expand the demonstration project to Medicaid-eligible persons who are aged, blind or disabled, or foster children; until then, they remain under traditional Medicaid.

Oregon Medical Insurance Pool:

The Oregon Medical Insurance Pool (OMIP) insures Oregonians who are unable to obtain coverage due to preexisting conditions.

OMIP became a state agency in 1989 (SB534) and first offered coverage in July 1990. The pool covers those denied health insurance, those with restrictive riders on existing policies, or those who have to pay charges well above standard premiums. Heart disease, cancer, diabetes and respiratory ailments are among the conditions that have kept the pool's clients from receiving insurance from other sources.

The pool is supported entirely by assessments on Oregon's health insurance carriers and client premiums. Premiums are set at 150 percent of the industry standard for Oregon. A typical individual participant, age 40, pays \$155 per month as of June 1994. By early 1994, OMIP served over 3,600 people.

Employer Mandate:

Full implementation of the Medicaid expansion and the Oregon Medical Insurance Pool would still leave more than 300,000 uninsured, most of them workers and their dependents.

In 1989, the Legislature decided that the state's employers should provide health insurance for all "permanent" workers and their dependents, eliminating most of the remaining gap in coverage. A permanent employee is one who is not seasonal or temporary and who works at least 17.5 hours per week.

The plan is called a "play or pay" system. Under the statutes, an Oregon employer will have only two choices: play by providing a group health insurance plan or pay through a payroll



tax. The tax would go to an Insurance Pool Fund which would subsidize an alternative insurance source for employees and their dependents.

Minimum standards for both options will be recommended to the 1995 Legislature by the Oregon Health Plan Administrator. Under the 1989 law, coverage offered under the pay (state pool) option must be substantially similar to the OHP Basic Health Care Package. The legislation was not clear on the minimum standards for employers who play.

The 1989 law requires employers who opt to pay the tax to pick up 75 percent of the cost of the benefit package, employees 25 percent. Dependent coverage cost would be split 50-50.

The cost-share for employers who buy commercial insurance wasn't specified. SB 5530 1993 asks the OHP Administrator to make recommendations on cost sharing for both options under the employer mandate.

The employer mandate under 1991 legislation was to take effect in July 1995. The 1993 Legislature delayed implementation until March 31, 1997, for those employing 26 or more; and to January 1, 1998, for those with 25 or fewer employees. The Legislature also asked for a study to recommend the "best alternative to the employer mandate." The 1995 Legislature will decide whether that alternative is desirable.

The mandate as written would cover an estimated 280,000 employees and their dependents. Proposals under study by the Oregon Health Plan Administrator could add even more, such as those working under 17.5 hours per week and seasonal workers.

The employer mandate also needs a Congressional exemption to the federal Employee Retirement Income Security Act (ERISA). The 1993 legislation set a deadline for that exemption if it does not occur before January 2, 1996, the employer mandate will be repealed.

Assistance for Small Employers:

Small employers have found it particularly difficult to purchase health insurance. The Legislature created two programs to help small business meet the goals of the Oregon Health Plan.

The **Small Employer Insurance Reform** law of 1991 created a conventional insurance plan and a health maintenance organization (HMO) plan accessible to all companies employing three to 25 people. Any insurance company in Oregon's three-to-25 market must offer this "basic" plan, and no employer in that category may be refused. An estimated 38,000 such businesses exist in Oregon. The plan's benefits are "substantially similar" to the Basic Health Care Package, and include mental health, alcohol, and chemical dependency benefits.



The 1991 law took steps to address problems that small businesses face in obtaining group policies, including:

- Limiting denial of benefits due to preexisting medical conditions and excluding pregnancy from the definition of preexisting conditions
- Outlawing “selective cancellation” of policies, even for individuals who develop high-risk conditions
- Controlling premium rates; rates must stay within 33 percent of a midpoint in a geographic area

The Department of Insurance and Finance Director (now Department of Consumer and Business Services) approved the basic plan, and it went on sale March 1, 1993. As of June 1994, premiums averaged about \$136 per person per month in the Portland metro area, slightly lower in other areas.

A voluntary tax credit program was established by the 1987 Legislature. The Insurance Pool Governing Board certifies group plans offered by five insurance carriers. To qualify, employers must:

- Employ 25 or fewer workers
- Pay a minimum of \$42 per month toward the premium of each enrolled employee
- Have not provided group health insurance for the previous two years

Premiums start at \$56 per month, as of June 1, 1994. Participating employers receive a state income tax credit (\$6.25/month, 1994) for each enrolled employee. Beginning in 1994, the board will adjust the premium according to the medical component of the Portland Oregon Consumer Price Index.

The Insurance Pool Governing Board plans have served more than 7,100 employers covering more than 24,700 individuals from April 1989 through June 1994.

Medicaid under Oregon Health Plan:

On February 1, 1994, as part of the Oregon Health Plan, the state embarked on a five-year program to make Medicaid available to thousands of people who previously did not qualify, even though their income is below the poverty level.



The Oregon Health Plan's Medicaid expansion is unique in at least two ways:

- It makes Medicaid available to most people living in poverty regardless of age, disability or family status;
- And its benefits are based on a prioritized list of health-care conditions and treatments.

The Medicaid expansion is taking place in two phases. During Phase I, which began February 1, 1994, coverage is extended to persons under the federal poverty level, except some exempt Medicaid groups: seniors, persons with disabilities, persons who are blind, and foster children. Also included in Phase I are persons who previously would have qualified for Medicaid because they are in the AFDC (Aid to Families with Dependent Children) program, as well as children under 6 and pregnant women with income less than 133 percent of the federal poverty level.

Phase II, scheduled to begin January 1, 1995 (pending federal approval), will add the exempt groups to the Medicaid expansion, and will begin integrating mental health and chemical dependency services into the OHP Basic Health Care Package.

The Oregon Health Plan changes Medicaid in four major ways:

- Eligibility - who can receive benefits
- Benefits - what is covered
- Service delivery - how clients receive their benefits
- Payment - how providers are reimbursed

Eligibility:

The Oregon Health Plan expands Medicaid eligibility for an estimated 120,000 Oregonians not previously covered by Medicaid.

Individuals and families with income below federal poverty guidelines (\$1,027 per month for a family of three as of April 1994) are eligible for OHP Medicaid coverage. Pregnant women and children under 6 with earnings up to 133 percent of the poverty level also are eligible. Generally, eligibility is for six months at a time, compared to traditional Medicaid's month-to-month eligibility.

OHP greatly simplifies the eligibility test and process for those not on public assistance: Eligibility is based primarily on income; and applicants fill out a simple form - either in person or by mail.



Once eligibility is confirmed, providers can be reimbursed for services provided from the date the application was requested.

Eligibility requirements do not change for the approximately 250,000 people who already receive Medicaid, even though most of them do receive OHP's new Basic Health Care Package.

Benefits:

Until at least January 1995, Oregon will operate two Medicaid systems.

- 1) **Traditional Medicaid**, with its fee-for-service delivery system, continues to cover approximately 70,000 Oregonians with the Standard Medicaid Package, including the aged, people who are blind, people with disabilities, and children under the care of the state Children's Services Division (mainly foster children).

These people continue to receive the Standard Medicaid Package, through existing delivery channels. OMAP administers traditional Medicaid, handles provider enrollment and reimburses on a fee-for-service basis.

Many seniors and persons with disabilities, and foster children, who receive traditional Medicaid coverage, will come under the Oregon Health Plan on January 1, 1995, also pending federal approval.

- 2) **Medicaid under OHP** provides health care coverage for:

- The newly eligible; and
- More than 180,000 people already receiving Medicaid (those receiving Aid to Families with Dependent Children, Poverty Level Medical assistance and General Assistance).

All of these clients receive the Basic Health Care Package.

The Health Services Commission, in hearings over more than 18 months involving more than 25,000 volunteer hours, devised a list of health services ranked by clinical effectiveness and value to society. Actuaries have determined how much it will cost to provide the services on the list. The Legislature then decides how much of the list to include in the Basic Health Care Package. The Legislature can fund services only in numerical order (say, from 1 to 600), and it cannot rearrange the order of the list. The Health Services Commission is charged with updating the list every two years.



The Prioritized List of Physical Health Services is published in the Oregon Health Plan Administrative Rules. The prioritized list emphasizes prevention and patient education.

In general, services which help prevent illness are nearer to the top of the list than services which treat illness. Treatment of advanced cancers, for instance, has a lower priority on the list than regular checkups, in the belief that early detection or lifestyle changes may reduce the frequency of cancers which become untreatable.

The Legislature funded the Basic Health Care Package for 1993-95 to cover 565 of the 696 health services on the current list, including:

- Preventive services to promote health and reduce risk of illness
- Comfort care or hospice treatment for terminal illnesses, regardless of where the conditions are on the list
- Ancillary services ranging from prescription drugs to physical therapy if they are medically appropriate for a covered condition/treatment

The Basic Health Care Package generally *does not* cover:

- Conditions which get better on their own (such as viral sore throat)
- Conditions for which home treatment works (food poisoning, sprains)
- Cosmetic procedures (such as scar removal)
- Conditions for which treatment is generally ineffective (aggressive treatment of some advanced cancers)
- Weight-loss or stop-smoking clinics, breast reduction or enlargement, routine circumcision, most infertility services and a few other treatments

A broader range of mental health and chemical dependency services will be phased into the Basic Health Care Package beginning January 1, 1995, pending federal approval. The Legislature has accepted a list which integrates mental health and chemical dependency services into the list of prioritized medical services, and funded a benefit package covering 606 of 745 services on the integrated list. These services are expected to be phased in statewide by July 1, 1996.

The prioritized list determines whether OMAP will pay for a given medical procedure to treat a particular condition. The list will evolve over time, under the direction of the Health Services Commission.

Service Delivery:

Most Phase I clients receive their care through prepaid health plans and a primary care practitioner who is a member of a plan. Others have a primary care case manager. And a few about 6 percent of those covered by OHP's Basic Health Care Package - continue to receive care through fee-for-service.

Managed care under the Oregon Health Plan takes four basic forms:

- Fully Capitated Health Plans (FCHPs)
- Physician Care Organizations (PCOs)
- Primary Care Case Managers (PCCMs)
- Dental Care Organizations (DCOs)

Which plan or plans a person belongs to depends on where he or she lives, and on which types of managed care are available in that area. When FCHPs and PCOs have the capacity to handle everyone who is eligible in a given area, clients will be required to choose one of those plans. A few exceptions are made, however, and PCCMs also play a role in areas where there are prepaid health plans.

A provider may belong to more than one managed health care organization or type of organization. For example, a physician may belong to more than one FCHP or PCO, and also be enrolled as a PCCM for Medicaid patients who are not enrolled in a managed care plan.

Here is how OHP managed care works:

- **Fully Capitated Health Plans (FCHPs)** - These prepaid plans contract with OMAP to provide a full range of services under the Oregon Health Plan. FCHPs, which are similar to health maintenance organizations (HMOs), receive a set monthly fee for each enrolled person, and manage each member's care, from routine office visits to hospitalization or treatment by specialists. Many include dental coverage. Wherever possible, OHP clients will be enrolled in FCHPs.

An estimated 74 percent of those receiving the OHP Basic Health Care Package are expected to be covered by FCHPs.

- **Physician Care Organizations (PCOs)** - These prepaid health plans provide most physician, laboratory and X-ray services. PCOs get a monthly fee to provide basic services for their enrollees, and will serve as "gatekeepers" for other services, such as



hospitalization. Some PCOs offer optional services such as outpatient hospital services.

An estimated 7 percent of those receiving the OHP Basic Health Care Package are expected to be covered by PCOs.

- **Primary Care Case Managers (PCCMs)** - In areas where there are not enough FCHPs or PCOs to handle the client load, and for other specific purposes, OMAP contracts with physicians, physician assistants, nurse practitioners and naturopathic physicians. PCCMs receive a small monthly payment to manage each client's health care, and bill OMAP (fee-for-service) for care provided. In addition to individual providers, Rural Health Clinics, Tribal Health Clinics, County Health Departments and similar organizations may serve as PCCMs.

About 13 percent of those receiving the OHP Basic Health Care Package are expected to be covered by PCCMs. In June 1994, there were 439 PCCM providers with capacity to serve 87,000 clients statewide.

- **Dental Care Organizations (DCOs)** - DCOs receive a monthly fee to provide dental services to clients who are not enrolled in an FCHP that covers dental care.

Payment for Services:

Although payment is still on a fee-for-service basis in some instances, the Oregon Health Plan emphasizes prepaid health plans as a way of ensuring more reasonable reimbursement rates to providers. This is an attempt to avoid shifting the cost of Medicaid onto other health care consumers.

The Prioritized List of Physical Health Services determines which services are potential benefits under the Oregon Health Plan. Once a patient's condition has been diagnosed and a course of treatment proposed, providers must use the list to find out whether the condition and treatment, fall between line 1 and line 565.

Some prepaid health plans may cover some conditions beyond line 565, and some may have elected to not reimburse providers for conditions that are covered by the prioritized list, in which case providers bill OMAP. Providers can provide treatments that are not covered by the Basic Health Care Package and bill the client, as long as the client is informed in advance and has agreed to this arrangement.

Source: The Oregon Health Plan, Department of Human Resources, Office of Medical Assistant Program
The Health Plan: A Process for Reform, John A Kitzhaber
Oregon Continues to Push its Health care Reform, Gregory Jordahl
Oregon becomes a Test Case for Health Care Reform, Virginia Morrill
Oregon, Intergovernmental Health Policy Project and the Henry J. Kaiser Family Foundation



Summary of major principles

Oregon

Universal Coverage

This plan seeks to achieve universal coverage with a comprehensive benefits package through a public-private partnership that builds on the current employment-based insurance system. Universal coverage is defined in Senate Bill #27 and Senate Bill #935. The first extends Medicaid coverage to 100 percent of those below the federal poverty level and a guaranteed set of benefits based on a prioritized list of health services. The new coverage will probably be similar to what is now covered under Medicaid. The second mandates comparable employment-based coverage for permanent employees who work more than 17.5 hours per week and their dependents with family income above the federal poverty level. This provision is Known as play or pay under the employer mandate. Small employers receive tax credits for voluntary coverage before July 1995.

Benefits

To decide the benefits coverage Oregon created the Health Service Commission. The Commission ranked health services for 695 different possible combinations of health conditions and treatment. Until at least January 1995, Oregon will operate two Medicaid systems: Traditional Medicaid and Medicaid under the OHP. The benefits include: preventive services, comfort care or hospice treatment for terminal illness, and ancillary services ranging from prescription drugs to physical therapy if they are medically appropriate for a covered condition/treatment. A broader range of mental health and chemical dependency services will be phased into the Basic Care Package beginning January 1995, pending federal approval.

Access

Financial Access: House Bill 5530 (1993) allowed the state to implement the Oregon Health Plan by:

- Funding the Medicaid expansion beginning Feb. 1, 1994, using general funds and a 10-cent-a-pack cigarette tax increase, and matching federal funds;



- Funding the Basic Health Care Package for 1993-95 to cover 565 of 696 services on the prioritized List of Physical Health Services;
- Funding integration of seniors and persons with disabilities into the Basic Health Care Package (pending federal waiver) either January 1, 1995, or within six months after waiver approval;

Approving the gradual expansion of coverage for mental health and chemical dependency services for Medicaid clients by funding a benefit package covering 606 of 745 services on a list which integrates these services. Pending federal approval, the integration will begin on Jan. 1, 1995, and be completed by July 1, 1996; Creating the position of Oregon Health Plan Administrator.

Geographic Access: Primary Care Case Managers are contracted to arrange care through physicians, physician assistants, naturopaths, and nurse practitioners in private offices, rural health clinics, tribal health clinics, and other facilities for the approximately 13.0 percent of OHP beneficiaries with geographic barriers to care.

Financing

The Oregon Health Plan is financed by a "public-private partnership". People without ability to pay are covered through general tax revenues and those with income above the federal poverty level, receive employment-based coverage with the cost split between the employer and the employee. A provider may belong to more than one managed health care organization or type of organization:

- Fully Capitated Health Plans (FCHPs)
- Physician Care Organizations (PCOs)
- Primary Care Case Managers (PCCMs)
- Dental Care Organizations (DCOs)

Organization and Administration

Oregon created and defined the duties of the Oregon Health Plan Administration. The law requires the administrator to integrate the Health Plan. The Oregon Health Plan Administrator coordinates health care reform and address issues including:

- defining a basic benefit package and responsibilities of employers, employees and the state in the employer mandate program
- developing other potential ways to achieve universal access such as an individual mandate, single-payer system, or expansion of voluntary programs
- developing an individual health plan option for low-income Oregonians and seasonal or part-time employees who might not otherwise be covered under the Oregon Health Plan
- developing a consumer scorecard to assist in selecting from among health plans or providers recommending ways to increase the efficiency and effectiveness of health care delivery and contain costs.

Community Participation

In the Health Service Commission the community participates to decide benefits coverage.

Appendix F

Tennessee Health Care Reform

In April 1993, Tennessee's Governor, facing Medicaid expenditures that were estimated to more than double from \$2.8 billion in 1993 to \$6.5 billion in 1998, introduced TennCare. TennCare was designed to enroll the state's 1 million Medicaid recipients and 500,000 uninsured into managed care plans without increasing the \$2.9 billion the state spent on Medicaid in 1993.

The Department of Health and Human Services approved TennCare in November 1993, as an experimental health plan that took effect on January 1, 1994. To implement TennCare, the federal government quickly granted a waiver which laid out 35 requirements the state must follow to insure that health care for the poor was accessible and assure that quality standards were met.

TennCare incorporates many of the priorities and initiatives under consideration by the President's Health Reform Plan. Included among these priorities are:

- Global budgeting to combine the purchasing power of all public program beneficiaries and uninsured
- A standard package of health care benefits comparable to that offered in the private sector
- A system of managed care to assure proper use of health care resources with an emphasis on quality control

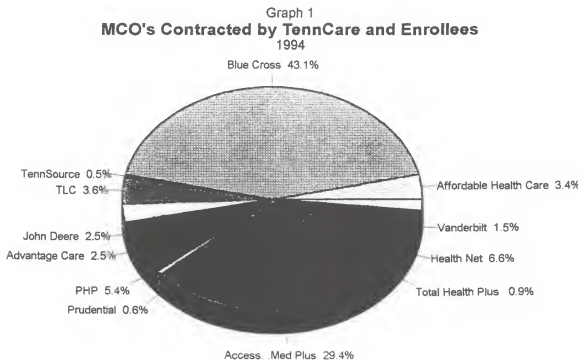
Tennessee's TennCare would provide coverage to the current Medicaid population for all services except long-term care, Section 1925 waiver, Medicare premiums and Medicare crossovers. The program will also provide coverage to those persons considered to be "uninsurable" because of their health conditions, as well as people without access to an employer-sponsored health plan.

People who were Medicaid eligible prior to the beginning of TennCare, were automatically enrolled. These people were sent information packets (a couple of months before their enrollment) about TennCare, brochures from the managed care organization (MCO) interested in serving the Community Health Agency region where they lived, and a TennCare ballot. They were asked to rank on the ballot their choices (prior to TennCare implementation) so they could be assigned to their preferred MCO.

Under terms of the federal waiver, each managed care group must have available enough primary care physicians to equal a ratio of one doctor per 2,500 TennCare members. With an expected enrollment of 1.5 million, 600 physicians were needed. That meant about 20 percent of Tennessee's 3,000 physicians who were practicing primary care medicine.

The Health Care Financing Administration (HCFA) received major complaints from physicians about TennCare's reimbursement rates, and allegations that the program had been designed without provider or community input. They also commented that almost 80% of physicians were not going to sign up with the state plan, so the waiver's ratio requirement could not be met. But Blue Cross\ Blue Shield of Tennessee, the largest of the 12 TennCare providers, signed 3,000 primary care doctors to serve its 300,000 TennCare members, a ratio that was 25 times the federal government's requirement. Blue Cross's ratio could be related to an ultimatum the insurer gave to their physicians announcing that physicians who were treating members of the Tennessee Provider Network, (a plan that offers generous reimbursement rates) wouldn't be allowed to refuse TennCare members.

From a list of 20 MCO's, 12 signed contracts, being Blue Cross the one with the greater number of enrollees (Graph 1). Everyone was assigned to their preferred MCO, unless that MCO ended up not contracting with the State. When the MCO was not contracted, people were assigned to their second choice, and so forth. All recipients of TennCare had 45 days to change MCO's if they were not satisfied.



Source: State of Tennessee, First Quarterly Progress Report (Jan-Mar 1994),
Bureau of TennCare

The people who applied for TennCare as uninsured or uninsurable had a different enrollment process. The participants of the Tennessee Comprehensive Health Insurance Program (4,000) were offered to enroll in TennCare as uninsurables. In addition, nearly 250,000 Food Stamp recipients not eligible for Medicaid, received an invitation to enroll in TennCare as uninsured. As of the end of March 1994 TennCare's enrollment was 877,452.

Since TennCare program implementation, the number of participating providers has been increasing. By May 1994, TennCare had over 1,759 primary care providers, a figure large enough to satisfy the "one doctor per 2,500 member" waiver requirement. Some of the MCO's which have recently signed are:

1. Jackson -Madison County Hospital
2. Jackson Clinic Group
3. Oak Ridge Orthopedic Group
4. Knoxville Orthopedic Associates
5. Orthopedic Associates of East Tennessee

Community Health Agencies (CHA), were established under the Community Health Act of 1989, based on the concept of rational service area. These areas were developed by tracking Medicaid patient service utilization patterns, identifying the distance in travel time, and incorporating advice from various health care professionals.

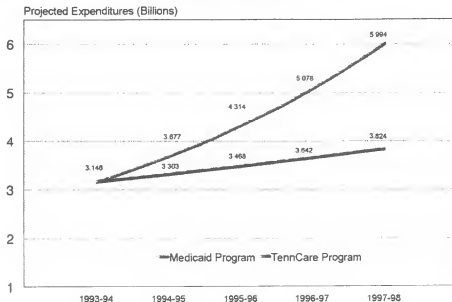
Each CHA is governed by a community based board consisting of a representative of each county in the CHA region. There are twelve CHA's in the state, which are in charge of organizing the enrollment and delivery of care. Within the community, health plans should develop networks to provide all services included in the benefit package and reimburse all providers in their networks.

Federal funding was set at a 67% match for the Medicaid program with the state funding the remaining 33%. TennCare was set as a vertically integrated model, with Blue Cross assuming the risk contracting. Blue Cross set payment rates at a 25% discount of prevailing fees. The cap on the growth of the federal contribution to TennCare is 8.3% per year or the President's proposed Medicaid growth caps under health reform, whichever is lower.

Tennessee's projection for the TennCare and Medicaid Programs shows that although both programs will cost the same in 1993 (\$3,145,704,000), TennCare will reduce the health cost over the five year period, while the Medicaid Program will show an increase. For 1998, the estimated expenses for Medicaid will increase to \$5,993,751,000; in contrast TennCare will

decrease to \$3,833,622,000 (Graph 2). After 5 years of TennCare implementation, health care expenses will be 78% of the expenses estimated for the Medicaid program. This represents a decrease of \$4,826,370,000.

Graph 2
Medicaid and TennCare Programs Projected Expenditures
Fiscal Years 1993 - 1998



Source: State of Tennessee, Department of Finance and Administration (November, 1993).

TennCare requires cost-sharing of premiums, deductibles, and copayments based on incomes, although no deductibles are required for Medicaid eligibles. Enrollees with 200% of Federal Poverty Level (FPL) or greater have the choice of having higher deductibles with a lower premium, or lower deductibles with a higher premium (Table 1). The premiums vary according to the family size and family income. As an example, a family of four members with a family income of \$1,600 will pay \$13.68 monthly; with a family income of \$2,000 they will pay \$27.35 monthly. The cost sharing requirements are designed to encourage more effective utilization of services, use of preventive services and financial responsibility for health care of the individual.

Table 1
TennCare Annual Deductibles and Out of Pocket Expenditures

% of FPL	0-100	101-199	200-Over	
			Regular	HighDeductible
Deductible (Individual)	\$0	\$250	\$250	\$1,000
Deductible (Family)	\$0	\$500	\$500	\$2,000
Out of pocket (Individual)	\$0	\$1,000	\$1,000	\$4,000
Out of pocket (Family)	\$0	\$2,000	\$2,000	\$8,000

Source: State of Tennessee Department of Finance and Administration, November 11, 1993.

Another health reform initiative was the Small Group Reform Act, which became effective in July 1992. This act calls for a committee to develop an insurance package for employers with 3 to 25 employees. A new law, enacted in June 1992, institutes a general service tax on hospitals and nursing homes to use the funds to help pay for the state's Medicaid program. The Health Access Act, passed in 1989, calls for recruiting physicians to provide medical treatment to underserved areas.

Tennessee had to meet the following terms and conditions before starting its health care reform:

1. HCFA must approve the contracts between the state and the 12 managed care organizations that will offer health plans to TennCare enrollees in the 12 services areas across the state. Each organization must prove its capability in delivering appropriate health services to all TennCare patients, including the disabled, chronically mentally ill and children.
2. The 12 health plans must contract with Federally Qualified Health Centers to deliver health services. However, if a health plan can demonstrate that appropriate services can be delivered without contracting with the centers, no contract will be required.
3. Tennessee was required to submit a description of any managed care organization that did not meet requirements prior to the awarding of contracts. The description must include the plan's delivery system, financial standing, and quality assurance system.
4. By December 18, 1993, Tennessee was required to submit a budget of sources and uses of state funds; information on supplemental funding pools, including payment schemes and audit capabilities.
5. By December 18, 1993, Tennessee was required to submit a plan on how it would convert from Medicaid to TennCare; how Medicare recipients would be affected, and how health plans would select and enroll members.
6. Tennessee must have a Management Information System in place to track information, including the names of enrollees in each plan.
7. By December 18, 1993, Tennessee was required to submit which health services it would evaluate to determine the quality of each health plan and the methodology for collecting the data for these evaluations.
8. By December 18, 1993, Tennessee was required to submit how it would determine the rate it would pay health plans for every enrollee; the types

of disbursements from supplemental pools, hospital costs that are in excess of capitated rates, and supplemental pool disbursements; the cost of providing services to TennCare enrollees in institutions for mental illness; and all non-TennCare costs, such as long term care, Medicare-cost sharing and administration expenses.

9. Tennessee was required to ensure all health services in urban areas between 20 miles or a 30 minute drive of each TennCare member. For rural areas, travel time to a doctor, hospital, dentist, and optometrist must meet "community standards."
10. Each health plan must have proven it had one primary care physician for every 2,500 TennCare enrollees.

Source: State of Tennessee, First Quarterly Report (Jan-Mar 1994), Bureau of TennCare.
State of Tennessee, Department of Finance and Administration (November, 1993).
StateLine, January/February 1994.



Summary of major principles

Tennessee

Universal Coverage

No universal coverage proposals. TennCare will cover the current Medicaid population, uninsurables, and uninsured.

BenefitsTennCare offers more benefits than Medicaid program. Includes inpatient hospital, out of patient hospital, and physician and specialist office visits.

Access

Financial Barriers: Cost sharing of premiums, deductibles, and copayments based on incomes, except for Medicaid eligibles who are not required to pay.

Geographic Access: Distance to primary care physicians should not exceed 30 miles or 30 minutes; hospitals, dental services, and general optometry services should not exceed 45 minutes. This is the rational service area concept, similar to the regionalization model operating in Puerto Rico.

Financing

TennCare uses global budgeting to combine purchasing power. The HCFA baseline was \$2,107,775,000 for the first year (1994). Federal funding was set at a 67% match for Medicaid with the state funding the remaining 33%. The total state funding will be \$1,037,929,000, and \$246,162,500 from charity.

Organization and Administration

To implement TennCare, the federal government granted a waiver, which laid out 35 requirements the state must follow. The Medicaid eligibles were sent information about TennCare and the MCO's of their region, for they to choose the MCO they wanted to enroll. The state also offered the "uninsurables" and the Food Stamp recipients to enroll in TennCare.

TennCare contracts managed care organizations to provide all health care services in the basic package. The managed health care organization will be either Preferred Provider Organizations (PPO) or fully capitated Health Maintenance Organizations (HMO) which meet all of the TennCare criteria.

Each managed care organization should provide information on provider and recipient activity (care provided,



levels of care provided and outcomes). The plan will monitor all preventive services provided.

Community Participation

Health Agencies (CHA), were established under the Participation Community Health Act of 1989. Each CHA is governed by a community-based board consisting of a representative of each county in the CHA region. There are twelve CHA's in the state, which are in charge of organizing the enrollment and delivery of care.



Appendix G

Vermont Health Care Reform

At the end of the 19th century, many of the efforts to address health problems originated in the public health system, focusing on the need to protect the population from disease. In 1886, the Vermont legislature created a statewide public health organization. In 1992, Vermont began its commitment with comprehensive health care reform. The first stage of the health care reform development includes:

1. a commitment to universal access
2. designation of a coordinating body to oversee and direct reform, the Vermont Health Care Authority (VHCA)
3. a strong cost containment mechanism

Health care reforms in the Green Mountain State can be traced to the creation of the Health Policy Corporation (now the Health Policy Council) in 1977. Two years later, this body began to share responsibility with the Health Department for reviewing significant service and capital expansions in Vermont. In 1983, the Hospital Data Council was formed to collect hospital information and review hospital budgets. In 1987, legislation was passed to limit providers ability to balance bill Medicare recipients for the portion of their bills not covered by the federal program. The Vermont Program for Quality in Health Care was formed in 1988 to develop clinical guidelines and to offer technical assistance to providers.

In 1989, the state of Vermont began to expand access by creating the "Dr. Dinosaur" program to cover low-income children up to age 6, 225 percent of federal poverty level and pregnant women up to 200 percent FPL. This expansion was designed to protect children and improve prenatal care.

In 1991, the Vermont Legislature prohibited insurance companies from denying coverage or charging excessive rates to high-risk groups, becoming the first state in the country to pass such legislation. Act 52 required all insurers to establish a single pool of all firms with fewer than 50 employees. Premiums for plans sold to individual firms in the pool could not vary more than 20 percent from the "community rate", and all individuals in the firms were guaranteed access to insurance, with no pre-existing condition limitation.

The results of the legislation was a reduction in the number of companies selling insurance in Vermont, as well as limitations in the range of premiums. Although Act 52 did nothing to contain overall medical costs, it did bring costs down for groups that were paying the most by shifting some of the burden to groups that had paid less.



Vermont continues with the implementation of other reforms mandated in a 1992 legislation for centralized health planning; regulation, data collection and budgeting; community rating and expanded coverage for children; and other system reforms related to development of primary care resources and improved provider availability. The specific plan for achieving universal access in November 1993 was unsuccessful, and they did not resolve the cost and financing implications of the health reform.

While the legislature continued its debate on proposed universal access reform, the Vermont Health Care Authority (VHCA) has remained on track with implementation of other components of 1992 laws. It has proceeded with development of expenditure targets and global budgets, coordination of health planning and cost-containment mechanisms, and development of an extensive statewide data base. The VHCA and the Health Care Information Consortium are developing a plan for a unified health care data base. Four committees are reviewing issues such as information elements, confidentiality, technology, governance and financing.

Vermont is already ahead of most of the country with other reforms. It was one of the first states to ban discrimination in insurance, requiring that coverage be offered to both, individuals and small businesses at a single community-wide premium rate. It passed the first community rating law for small businesses in 1991. The 1992 law calls on insurers to organize networks of providers to coordinate care and keep costs in line.

The state also has some of the strictest cost containment rules in the country. In 1993, the authority set expenditure targets for hospitals and the rest of the health system. Besides a strong, centralized planning authority, Vermont is encouraging health care providers and insurers to collaborate. Doctors may form groups to negotiate rates with the authority; and are being encouraged to work with hospitals to form networks to coordinate care while keeping costs down. In 1992, a state-only Medicaid program, "Doctor Dinosaur" was extended for uninsured children between the ages of 6 and 17 in families with incomes up to 225 percent of the federal poverty level. Also the mandate of 1992 addressed the need to improve supply and availability of primary care throughout the state. The Health Care Authority was directed to develop primary care resources around the state.

During 1994, Vermont considered two models for universal health care coverage presented by the Vermont Health Care Authority (VHCA) in November 1993. The first model was a single-payer system in which everyone in the state is part of the same health plan, such as a government insurance program, which negotiates prices with doctors and hospitals. The second model was a multi-payer regulated system, which would let people choose among health plans and would set strict rules for the plan and for the insurers to keep costs down. Both proposals provide for universal coverage, portability of coverage, uniform benefits, integrated systems of care, capital expenditures control, and a binding cap on general

spending. In terms of financing the state governor proposed a plan similar to that put forth by president Clinton that includes an employer mandate.

The recent optimism about passage of health care reform in Vermont to guarantee universal access has been dimmed. State legislators were divided between a single payer plan and Gov. Dean's less ambitious employer mandate, and were unable to agree on the benefits to be included in the plan, the extent of reform, or the financing of reform (the employer mandate or the tax-based system). Both, the employer mandate and the tax-based system, failed to garner enough votes to pass in the House.

After a prolonged impasse, the House voted on financing and sent a bill to the Senate that called for universal coverage by January 1996, without specifying a funding mechanism.

Upon passage of Act 160 in 1992, it appeared that Vermont was on its way to becoming the first state since Hawaii in 1973 to pass universal access legislation. This legislation would build upon previous Vermont initiatives to ensure that all Vermonters had access to affordable, high-quality medical care.

HEALTH CARE COVERAGE IN VERMONT

Much of the health care reform debate focuses on the “Insured” and the “uninsured.” However, to understand the complexities of the health care system, it is important to recognize the various types of health coverage and the ways to receive that insurance, as well as to look at the different types of people who fall into various coverage categories.

Sources of Coverage

Health coverage is provided in both the private and public sectors. Public sector insurance consists of Medicare and Medicaid.

In Vermont all children (under age 18) up to 225 percent of the federal poverty level, and all pregnant women up to 200 percent of FPL, are eligible. Adults with families eligible for ANFC (Aid to Needy Families with Children) benefits may also be eligible for Medicaid benefits. Individuals with disabilities or chronic health conditions are often eligible as well. Low income alone is not enough to receive Medicaid benefits.

Private Insurance

Vermonters with private coverage possess a wide range of benefits from a variety of sources. Some plans include first-dollar coverage for comprehensive benefits. Other plans have large deductibles, benefit limits, and a lesser scope of coverage. These insurance plans are purchased in a variety of ways from a very complex market.

Health coverage can be purchased directly, through an employer or association, or provided by a self-insured employer or association. Vermonters who purchase coverage directly from an insurance company currently have a number of choices of plans, including fee-for-service and managed care options, offered by eight companies that sell policies in the non-group market. Premiums are based on a community rate for each product available.

Companies with fewer than 50 employees can purchase coverage on behalf of their workers from any of the 18 insurance companies selling policies in the large-group market. Premiums in this market cannot vary by more than 20 percent from the product’s community rate.

Firms with 50 or more employees can purchase coverage on behalf of their workers in the large-group market, where premiums are usually based on the experience of the individual group. Companies can also provide health coverage to their employees by paying bills directly as a self-insured firm. These firms do not pay premiums, but rather maintain a fund to pay for medical expenses.

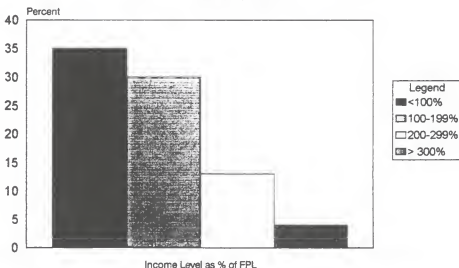


In addition, the amount paid for insurance varies significantly, depending on the level of benefits, the experience of the insurance company, and the purchaser of those benefits. For example, community rates for individual plans offered by Blue Cross/Blue Shield (BC/BS) in 1994 ranged from \$96/month to \$220/month depending on the cost-sharing provisions (deductibles, out-of-pocket maximums). Premiums for individuals buying identical policies in the non-group market can vary by, as much as 80 percent depending on the age and gender of the individual. As a result of Act 52, that variation will decrease to 40% in July 1995.

The Uninsured

The uninsured in Vermont are generally low-income individuals who do not qualify for (or neglect to enroll in) Medicaid. They may be middle-class or wealthy individuals who choose not to buy insurance. They are almost always under 65, and mostly between 18 and 35 years. They are often employed. (Figure 1)

Figure 1
**Percent of Vermonters 18-64 Uninsured
by Income Level (as % of FPL)**
Vermont, 1994



Source: Vermonters' Guide to Health Care Reform, 1994

Due to Act 52 and Act 160, they are not people who were denied coverage by an insurance company. No individual can be denied health insurance in Vermont, or charged prices that are too far out of line with what other Vermonters are paying for health care.

Vermont Health Care Coverage Facts

- 35,000 Vermonters live in families where some members are insured and some are uninsured.

- Vermonters between the ages of 20 and 25 are the most likely to be uninsured.
- 20,000 Vermonters purchase insurance directly from an insurer.
- Fewer than one third of Vermonters with income under the federal poverty level are on Medicaid.
- 48 percent of the uninsured work for firms with fewer than 25 employees.
- 20 percent of employees working for firms with fewer than 25 employees are uninsured.
- 22 percent of self-employed people are uninsured.

Health Coverage by Age and Family Poverty Level 1993 Vermont Non-Institutionalized Population

Total

% of FPL	Medicare	Medicaid	Insured	Uninsured	Total
<100%	11,742	36,507	18,223	18,137	84,609
100-199%	21,735	15,532	60,192	23,414	120,873
200-299%	13,813	2,597	95,433	12,707	124,550
>300%	24,930	1,311	203,122	8,081	237,444
Total	72,220	55,947	376,970	62,339	567,476

Less than 18

% of FPL	Medicare	Medicaid	Insured	Uninsured	Total
<100%	73	22,525	4,371	2,157	29,126
100-199%	1,178	10,876	21,819	3,760	37,633
200-299%	35	1,977	29,642	2,605	34,259
>300%	0	954	45,062	1,185	47,201
Total	1,286	36,332	100,894	9,707	148,219

19 to 64

% of FPL	Medicare	Medicaid	Insured	Uninsured	Total
<100%	1,859	13,674	13,852	15,980	45,365
100-199%	5,529	4,605	36,234	19,374	65,742
200-299%	685	620	64,313	10,102	75,720
>300%	350	357	157,470	6,896	165,073
Total	8,423	19,256	271,869	52,352	351,900



65 and over

% of FPL	Medicare	Medicaid	Insured	Uninsured	Total
<100%	9,810	308	0	0	10,118
100-199%	15,028	51	2,139	280	17,498
200-299%	13,093	0	1,478	0	14,571
>300%	24,580	0	590	0	25,170
Total	62,511	359	4,207	280	67,357

System Complexities

Health insurance in Vermont is a complex, even frustrating - subject. Each source of coverage has its own rules, and focuses on a different population. Some programs, such as Medicare, cover specific individuals, regardless of their family situation. Commercial insurance is typically, but not always, sold to families, with a very specific definition of family. Medicaid has many eligibility rules, some based on families and some based on individuals. Before considering reform options, it is essential to appreciate the complexity of the current system.

One of the factors complicating the discussion of coverage is that it is common for individuals to have multiple sources of coverage - usually Medicare and private insurance or Medicare and Medicaid. Consequently, the number of individuals with Medicaid as the primary source of coverage is always lower than the total Medicaid caseload.

Adding to the complications is that, while we often look at the family when discussing health coverage, many Vermont families consist of individuals with different types of coverage or coverage from different sources.

Employment Status and Coverage

What employers offer for health benefits varies significantly from firm to firm. Some companies offer a choice of plans, some offer only one, and some offer none at all. Some companies offer policies with limited benefits and substantial cost-sharing obligations. Some companies provide insurance as full benefits, some require employees to pay a portion of the premium with their wages and salary. Some companies provide insurance for employees only, and some provide for the entire family.

As a result, not all employees who are offered coverage accept it, either because they can't afford their share of the premium, or because they are covered by a spouse. Conversely, many people are covered even if their employer does not offer insurance. In some families, one individual is covered and another is not.

Availability of coverage from the workplace is strongly related to both employer size and employee income. For example, small grocery stores and large retailers may not offer insurance, whereas small law firms and large manufacturers usually do.

Geographic Access

Geographic access considers the availability of providers and facilities within a reasonable distance from one's home, and is usually measured in travel time. It also considers waiting times required for necessary services.

The Health Resource Management Plan (HRMP) serves as a resource inventory and strategic planning document for Vermont's health care system. The plan is adopted every three years by the Health Policy Council and the Health Care Authority. From a geographic perspective, the HRMP defines reasonable access at three levels:

- community services that are generally accessible within 30 minutes travel time;
- regional services that are generally accessible within 60 minutes; and
- tertiary, services that are generally accessible within 90 minutes.

Community services include public health, primary care, mental health and substance abuse treatment, home health care, community hospital and nursing home care. These basic health care services include check-ups, immunizations, initial diagnoses, routine preventive screenings, health education counseling, X-ray, and laboratory services. Access to such care is essential for prevention and early detection efforts, which are often the most effective ways to improve health at minimal cost. Regional services include intensive outpatient substance abuse treatment, hospital psychiatric units and medical rehabilitation units.

Tertiary services usually refer to more specialized interventions, including neonatal intensive care, full radiation therapy, and transplant services. These services are often provided in academic medical centers. A few services are only available in one location because of low demand. Such facilities include the forensic unit at the state hospital, an inpatient facility to treat adolescent substance abusers, and the nursing home for Vermont veterans.

Access to Primary Care

Primary care services are usually provided in community physician offices and health clinics by a team of physicians and other professionals such as nurse practitioners, physician assistants and certified nurse midwives. Primary care physicians tend to be generalists who focus on family medicine, pediatrics, internal medicine, or obstetrics and gynecology.



The U.S. Department of Health and Human Services uses a standard of one physician for every 1,500 people as an appropriate supply of primary care physicians. Statewide data show that Vermont's total physician supply is adequate. However, there are several areas where geographic access is unacceptably low, with some areas officially designated as "medically underserved" by the federal government.

While some of the need in underserved areas may be met by non-physician professionals, information about their supply and distribution is less complete than that of physicians (mostly because the physician survey instrument is a required part of doctors' license renewal). A better understanding of where these practitioners work and the nature of their practice is necessary to better assess distribution problems.

Characteristics of Vermont's Primary Care Physicians

Most of the data currently available on Vermont physicians come from a 1992 survey by the Vermont Department of Health and the Board of Medical Practice, which collected information about 1,108 active physicians licensed to practice in Vermont, and from 1992 survey by Middlebury College professor David Napier. The surveys found that:

- almost 75 percent of Vermont's primary care physicians are under age 55 - a much younger work force than the national average;
- about 30 percent had grown up in a rural setting, and 21 percent had previous experience in rural health care;
- approximately 27 percent graduated from a University of Vermont residency program, and another 32 percent graduated from a program in either New Hampshire, New York, Maine, or Massachusetts.

Information about Vermont's supply of primary care physicians can be used to help develop strategies to recruit and retain providers in areas of the state that face shortages.

University of Vermont's Efforts to Improve Primary Care Resources

The University of Vermont College of Medicine has made several efforts to increase the number of primary care providers trained in Vermont. In its report to the Health Care Authority, UVM's "Primary Care Initiative", the College established a goal to have half of its graduates enter primary care practice. A new position of Associate Dean for Primary Care was created and primary care faculty have been added to the admissions committee. The College has also established a rural practice rotation for third-year students, and the Department of Family Practice has increased the number of resident positions in its program.

Recent Initiatives to Address Medically Underserved Areas of Vermont

Three major initiatives have developed recently to address medically underserved areas in Vermont. Legislation was passed in 1994 to develop a primary care loan repayment program administered by the Department of Health to provide up to \$20,000 for medical education loans in exchange for work in a medically underserved area. The program is targeted to primary care physicians, physician's assistants and advanced nurse practitioners. Other professionals can become eligible depending on specific needs of a community.

Another initiative, developed by the Bi-State Primary Care Association in conjunction with Gifford and Copley hospitals, will use a \$100,000 grant to create a centralized recruitment office. The grant will enable Vermont to fund a full-time recruiter and establish a centralized clearinghouse for provider recruitment information.

Additionally, UVM has applied for an Area Health Education Center (AHEC) grant that would link community health delivery with the University's academic resources and educational training opportunities.

Other Health Care Resources

Ambulatory Care

The HRMP identified several primary care service areas where detailed examination was needed to determine whether expansion of primary care resources was called for. It also identified certain fragile areas where the loss of one practitioner could seriously affect access. It did not identify any new areas for improved access to dental services. The state is lacking adequate data on mental health practitioners in private practice. However, the HRMP noted specific areas where the Department of Mental Health had identified a need for increased capacity. Similar data limitations were found regarding substance abuse treatment providers and no judgement could be made about their supply and distribution.

Long-Term Care

The Plan reiterated policy dating back to 1980 that emphasized the need to develop and maintain a range of services to meet Vermonters' long-term care needs in the least restrictive environment. That policy required adding capacity in non-institutional settings while constraining the growth in nursing home beds. It recognized that many "social" services are essential to an effective community-based long-term care program. It supported the Medicaid Waiver Program as an alternative to adding nursing home beds, and identified the need to expand the number of waiver slots rather than expand nursing home beds. It found that there

was no need to duplicate the comprehensive services offered to all Vermonters by the home health agencies throughout the state.

Hospital Services

Vermont has 15 reasonably well distributed general hospitals, two psychiatric hospitals and the veterans' hospital serving Vermont and adjacent states. Tertiary care is provided in Burlington as well as in Lebanon, N.H. and Albany, N.Y. All the hospitals operate fewer beds than they were designed for. This reflects the recent trend to shorten inpatient length of stay and to move certain procedures to outpatient services. Hospitals have reallocated former bed space in reaction to the growth in outpatient work, and some required considerable capital investment to make the transition.

The HRMP identified seven major medical capacities that it deemed essential at the tertiary centers, such as dialysis, cardiac catheterization and MRI. It discouraged expansion of access unless such expansion demonstrably improved the quality of services or could be achieved without increasing system costs, or unless there was another compelling reason.

The next Plan will be published for formal public hearing in the fall of 1995 and presented to the Authority for its consideration by January 1996. It is expected to build on the best parts of the last Plan as well as to address new areas. It will focus on providing information that is useful to local groups interested in local health care issues.

Information from the unified health care budgeting process will also be added. All of the changes are designed to be more informative about health care concerns.

Organizational Access

Changes in the way the health care delivery system is organized impeded access for some individuals. Increasingly, providers who have agreements or contractual relationships with insurance companies (including HMO's) see only patients enrolled in a particular health plan.

Also, some individuals are required to choose a primary care provider from a plan with an inadequate supply of such doctors.

In addition, some providers refuse to see patients who cannot pay the full fee because they are covered by insurers that do not fully reimburse (most often Medicaid).

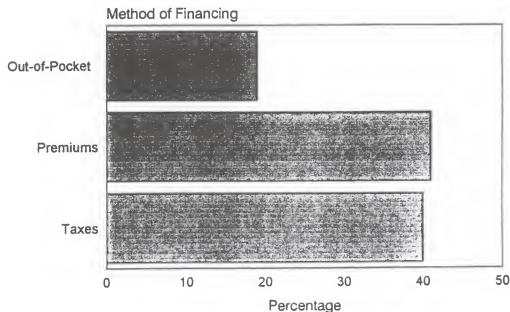
Consequently, some individuals who have both financial and geographic access to providers still cannot easily obtain health care.



Financing:

Health care financing relies on the hybrid of the three models. Some families pay for health care through taxes, some through premiums, and some directly with out-of-pocket expenditures (Figure 2). How these expenditures are divided among those three sources will vary from family to family depending on level of coverage, income and actual health care utilization.

Figure 2
Methods of Financing
Vermont, 1992



Source: Vermonters' Guide to Health Care Reform, 1994

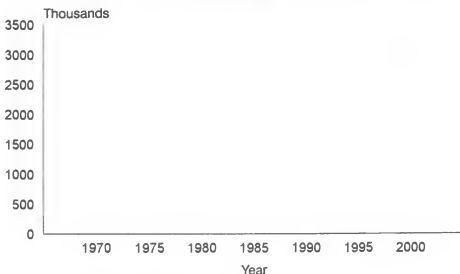
Distributing the Cost Burden

In 1995, health care expenditures on behalf of Vermont residents will approach \$2 billion, resulting in an average health care bill of \$3,390 for each Vermonter. However, each year most Vermonters need very little or no medical care. The majority of health care expenditures in Vermont goes for individuals who need extraordinary care for extreme conditions or long-term care for chronic conditions. In fact, the 5.0 percent of the population with the highest medical costs routinely account for close to 60 percent of total expenditures (Figure 3).

Average annual costs for the most expensive 1.0 percent of the population could exceed \$100,000 in 1995. Very few families have the financial capacity to pay such bills. Fortunately, health insurance and social programs help to distribute the cost of operating the health care system across the population, so that individuals who need the most services do not bear the

entire cost burden, while affording access to all, regardless of their financial status. As a result, most Vermonters spend significantly more on health care every year than they use.

Figure 3
VT Health Care Expenditures History and Trend
(1972-2000)



Source: Vermonters' Guide to Health Care Reform, 1994

How You Pay

Households purchase health care in the form of voluntary insurance premium payments to commercial insurers and to Medicare for part B coverage, in addition to out-of-pocket payments. Vermonters pay premiums either directly to insurers, or indirectly through their employer. Employers who provide health coverage deduct money from an employee's total compensation to pay for health insurance. Those deductions are then paid to either a private insurer or into a fund to cover employee health costs.

Employer Spending for Employee Compensation, 1970 - 1989

Spending per Full-Time Equivalent Employee, Constant 1989 dollars

	1970	1989	% change
wages/salary	\$24,768	\$24,884	0.5%
retirement	\$ 1,808	\$ 2,390	32.2%
health	\$ 656	\$ 1,722	162.5%
other	\$ 507	\$ 729	43.8%
total	\$27,739	\$29,725	7.2%

Finally, Vermonters pay both federal and state taxes, a portion of which goes to fund health care activities. Federal taxes help support the Medicare and Medicaid insurance programs as well as the Veterans Administration and some public health activities. State taxes help support Medicaid as well as services such as the state psychiatric hospital, environmental health programs and public health nurses.

While changes in financing systems could affect total costs by changing utilization incentives (see sidebar), the most significant effect is the change in distribution of health care expenditures among different Vermonters. Increasing health care coverage for Vermonters would increase insurance premiums and decrease out-of-pocket expenses. Vermonters who need more health care would likely pay less, as out-of-pocket expenses decrease more than premiums increase. Vermonters who do not need much care would likely pay more.

Further insurance reforms would probably lead to a narrower range of rates paid by Vermonters. Those with higher rates would pay less; those with lower rates would pay more.

A shift to tax-financed health insurance would likely decrease the amount paid by Vermonters with below-average incomes, and increase the amount paid by Vermonters with above-average incomes. These changes could occur without changing the total amount spent on health care in Vermont. Herein lies the gist of the financing debate.

Sources: Preliminary RAND Estimates from the 1993, Robert Wood Johnson Foundation Survey of Family Health Insurance; Census Bureau, Current Population Survey, 1994.

An overview of the proposed Health Care Reform Act, Vermont Agency of Human Services and Vermont Health Care Authority, 1994.

Vermonters' Guide To Health Care Reform, Health Care Authority State of Vermont, 1994.

Summary of major principles

Vermont

Universal Coverage

During 1994, Vermont considered two models for universal health care coverage presented by the "Vermont Health Care Authority" (VHCA) in November 1993. The first model was the single-payer system in which everyone in the state is part of the same health plan, such as a government insurance program which negotiates prices with doctors and hospitals. The second model, a multi-payer regulated system, which would allow people to choose among health plan and would set strict rules for the plan and for the insurers to keep costs down. Both proposals provide for universal coverage, portability of coverage, uniform benefits, integrated systems of care, capital expenditures control and a binding cap on general spending. Health coverage is provided in both the private and public sectors. Public sector insurance consists of Medicare and Medicaid.

In Vermont all children (under age 18) up to 225 percent of the federal poverty level, and all pregnant women up to 200 percent of FPL, are eligible. Adults with families eligible for ANFC (Aid to Needy Families with Children) benefits may also be eligible for Medicaid benefits. Individuals with disabilities or chronic health conditions are often eligible as well. Low income alone is not enough to receive Medicaid benefits. Individuals with disabilities or chronic health conditions are often eligible as well. Low income alone is not enough to receive Medicaid benefits.

Benefits

Community services include public health, primary care, mental health and substance abuse treatment, home health care, community hospital and nursing home care. These basic health care services include check-ups, immunizations, initial diagnoses, routine preventive screenings, health education counseling, x-ray, and laboratory services. Access to such care is essential for prevention and early detection efforts, which are often the most effective ways to improve health at minimal cost. Regional services include intensive outpatient substance



abuse treatment, hospital psychiatric units and medical rehabilitation units.

Tertiary services usually refer to more specialized interventions, including neonatal intensive care, full radiation therapy, and transplant services. These services are often provided in academic medical centers. A few services are only available in one location because of low demand. Such facilities include the forensic unit at the state hospital, an inpatient facility to treat adolescent substance abusers, and the nursing home for Vermont veterans.

Access

Financial Barriers: The uninsured in Vermont are generally low-income individuals who do not qualify for (or neglect to enroll in) Medicaid. They may be middle-class or wealthy individuals who choose not to buy insurance. They are almost always under 65, and mostly between 18 and 35 years. They are often employed. Due to Act 52 and Act 160, they are not people who were denied coverage by an insurance company. No individual can be denied health insurance in Vermont, or charged prices that are too far out of line with what other Vermonters are paying for health care.

Geographic access: Geographic access considers the availability of providers and facilities within a reasonable distance from one's home, and is usually measured in travel time. It also considers waiting times required for necessary services.

The Health Resource Management Plan (HRMP) serves as a resource inventory and strategic planning document for Vermont's health care system. The plan is adopted every three years by the Health Policy Council and the Health Care Authority. From a geographic perspective, the HRMP defines reasonable access at three levels: community services that are generally accessible within 30 minutes travel time; regional services that are generally accessible within 60 minutes; and tertiary, services that are generally accessible within 90 minutes.

Financing

The state governor proposed a plan that is similar to that put forth by president Clinton and that includes an employer mandate. Some families pay for health care through taxes, some through premiums, and some directly with out-of-



pocket expenditures. How these expenditures are divided among those three sources will vary from family to family depending on level of coverage, income and actual health care utilization.

Organization and Administration

During 1994, Vermont considered two models for universal health care coverage presented by the Vermont Health Care Authority (VHCA) in November 1993. The first model was a single-payer system in which everyone in the state is part of the same health plan, such as a government insurance program, which negotiates prices with doctors and hospitals. The second model was a multi-payer regulated system, which would let people choose among health plans and would set strict rules for the plan and for the insurers to keep costs down. The state also has some of the strictest cost containment rules in the country. In 1993, the authority set expenditure targets for hospitals and the rest of the health system. Besides a strong, centralized planning authority, Vermont is encouraging health care providers and insurers to collaborate. Doctors may form groups to negotiate rates with the authority; and are being encouraged to work with hospitals to form networks to coordinate care while keeping costs down.

Community Participation

None has been contemplated.



CMS LIBRARY



3 8095 00015104 9